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MIND
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OF
PSYCHOLOGY AND PHILOSOPHY.
EDITED BY
PROF. G. F. STOUT,

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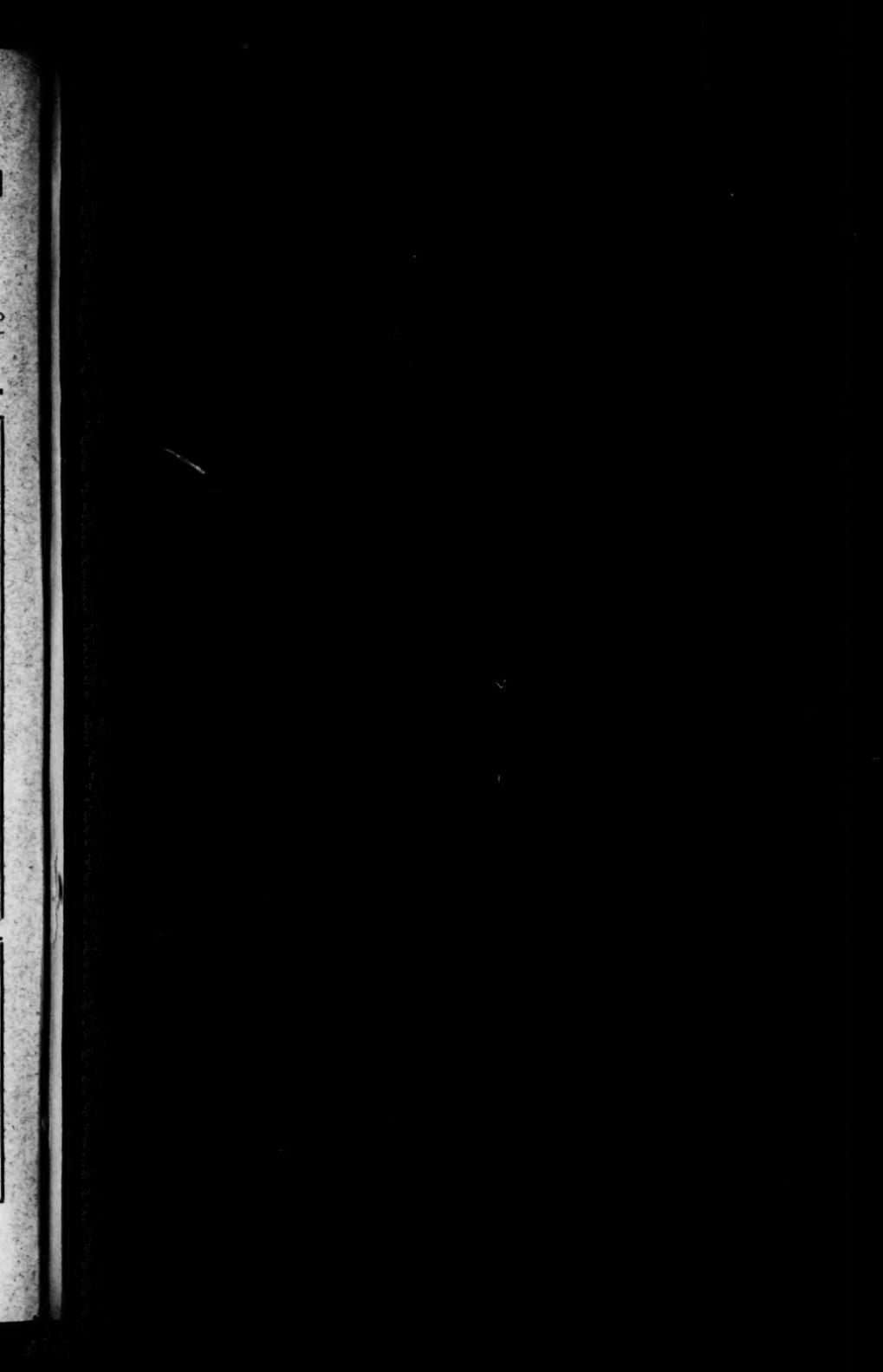
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MIND

A QUARTERLY REVIEW
OF
PSYCHOLOGY AND PHILOSOPHY

I.—ANALYSIS OF THINKING. (II.).

BY W. E. JOHNSON.

ONLY a few words must be here interpolated in introducing the topic of the logical *conjunction*. A construct in which predications are united by logical conjunctions constitutes a compound predication, and must be treated in connexion with *negation*. A predication involving conjunctions and negations will be termed a *conjunctional* function of its constituent predications. Thus the conjunctions *and*, *or*, *if* yield respectively the conjunctive, alternative, and implicative form or function. The details of the theory of conjunctional functions belong to the preliminaries of formal logic and cannot be entered upon here. It is only necessary to remark that conjunctions—like *ties*—are, properly speaking, not genuine constituents, but merely formal elements. The same holds of logical *punctuation*, by which the bracketing and separating of sub-constructs constituting a complex construct are indicated—another topic upon which space forbids us to enter.

In discussing the logical forms of construction, we will next consider the import of the substantival prefixes—a, the, some, every, etc., which I propose to call *selectives* or *applicatives*. An applicative is always prefixed to a general substantive name; and an applicative may be defined to be a non-characterising determinator of application. Applicatives are sometimes classified by grammarians under adjectives; but an adjective proper, when prefixed to a general substantive name, restricts the range of application by a *characterising differentia*, whereas an applicative determines application

otherwise. The first applicative to be considered is the indefinite article *a*. In some languages this article does not exist;—a fact which may be explained by defining the indefinite article to be the *undetermining applicative*. This applicative is directly opposed to the *uniquely-determining applicative*, expressed most generally by the definite article *the*. The most important of the remaining applicatives are the *distributives*, *every* and *some*, which may respectively be termed conjunctive and alternative, since the former condenses a conjunctive, and the latter an alternative reference. For example: "Every one of the twelve chosen disciples was a Jew" yields the *conjunctive* proposition—"Peter and John and James and . . . was a Jew"; and "Some one of the twelve chosen disciples was a traitor" yields the *alternative* proposition "Peter or John or James or . . . was a traitor". The same interpretation holds when the substantival reference cannot be exhausted enumeratively; as in "Every one of the points on the sphere S is at distance *r* from the centre O"; or "Some of the points on the line L are at distance *r* from the point P". Again, the familiar forms of proposition "Every man is fallible" "Some men are foolish" yield, respectively, conjunctive and alternative implications. The strict use of the article *a* as the undetermining applicative, must be distinguished from that use which is more unequivocally expressed by the phrase "a certain". The simplest use of the phrase "a certain" is where it serves to introduce an object to which we may return in thought, and in such return employ the article "the". For example—"A certain boy lived in a forest, and this (or the) boy planted a bean-stalk". When the phrase "a certain" is followed, in this way, by "the" or some equivalent, the former may be called the introductory indefinite, and the latter the referential definite.

We proceed, then, to the consideration of the *unique* selective, of which there are several variations, the connexions between which must be carefully inspected. Before discussing the question of a unique selective, let us consider the more general topic of a unique name. A unique substantive-name will be illustrated by "Peter" or "London," a unique adjective-name by "cold" or "rigid". The use of names such as these presupposes a process of unique identification. In however simple or complex a manner this process of identification may have been effected, the *use* of the name is independent of this presupposed process of identification. A name used with literally no indication of any presupposed process of constructive identification may be called a *proper*

name. Such a name must always be *introduced* with an indication of some process of constructive identification, by means of which the application of the name may be understood by those who use it to be the same as that determined by the constructive process. Thus, when we hear that "the Prime Minister of England in 1914 was Asquith," we see that the name Asquith, as distinguished from the complex name standing as *subject* of the proposition, is a name which does not indicate any process of constructive identification. In working out logical systems of symbolism, it is an invariable custom to select letters such as *a*, *b*, *x*, *y*, *s*, *p*, to denote uniquely determined objects. These symbols do not indicate any process of construction by which their application might be uniquely determined; and, in their further use, the constructions into which they enter are unaffected, however their unique application may be—or may have been—determined. They are often at first introduced in the construction of general formulæ, and later are *applied* to denote this or that defined construct. In this case the process of constructive identification follows the introduction of the symbols; but in other cases, specific symbols are introduced *after*, instead of before, the process of constructive identification has been indicated. Whichever of these two methods is adopted, we see that the symbols are *used* without any reference to any process of construction, and that, therefore, they have all the characteristics of the proper name. The fact that in symbolic systems many symbols are introduced *before* any indication of constructive process has been given, has led logicians to the mistaken view that the proposition that is symbolically the simplest—*viz.*, that in which the only substantive-names and adjective-names are proper names—is logically or psychologically the earliest. We hold, on the contrary, that the *proper* name must be defined in use always, ultimately, by means of a *descriptive* name, in the wide sense of the term descriptive. More primitive than either of these is a name which can only be expressed by the prefix, "a certain," which is a special selective, not generally distinguished from the indefinite article. In fact, this selective seems to blend the characteristics of the unique "the," and the alternative indefinite. Phrases which involve "a certain" do not convey to the hearer any process of identification by which the thinker has determined the reference. Therefore, although, for the thinker "a certain" stands for a unique selective, for the hearer it is merely an alternative indefinite. The exclamation "Thunder!" regarded as an assertion, is formless as regards substantival reference, and could only be

linguistically expressed somewhat as follows: "A certain manifestation has the character thunder". When the manifestation about which such an assertion has been made is referred to again, language adopts what we may call the referential article "the" or "this". Thus when we speak of *the* object which has been just experienced by me, or about which I have just been thinking or speaking, or in reference to which a certain proposition has been put forward, then, in every case, we are using a descriptive phrase (in the widest sense of the term) which indicates uniquely the reference intended. Now names constructed in this manner may be called referentially unique and be regarded as a special class of descriptively unique names. One familiar case of their occurrence is in narratives—fictitious or historical. In order to indicate unambiguously the reference intended, such phrases as "the latter," "the former," "celuici," "celuila," "hic," and "ille" may take the place of "the" as indicating referential uniqueness; and again the referential pronouns "he," "she," "it," perform the same function. These devices must be supplemented in a continued discourse by the use of proper names, adopted either for permanent application, or for merely temporary and contextual reference. What is effected in narrative by the proper name is secured in symbolic systems, mathematical or otherwise, by arbitrary symbols such as *a*, *b*, *x*, *y*, which are understood to indicate unique identification where the *same* symbol recurs in the *same* context. Whatever device may have been adopted, we may speak of the uniquely determined object as the *selected* object.

A construct involving substantives and adjectives, united by characterising and coupling ties, and by logical conjunctions, may be called a *descript*. The strictly undetermining applicative marks the *undetermined descript*. Consider the undetermined descript "A child afraid of a dog"—which is equivalent to "A dog frightening a child". Here, such a component as "a dog" or "a child" (which is of the general nature of a substantive) will be called a *descriptum*; and such a component as "afraid of a dog" or "frightening a child" (which is of the general nature of an adjective) will be called a *description*. The presence of the indefinite article indicates undeterminedness whether it be of the *descriptum* or of the *description*. But when, in place of "a dog" we substitute "a certain dog" or "some dog" or "every dog," then instead of the undetermined description "afraid of a dog" we obtain a *determined description*. Again, if we substitute for "a child" "a certain child" or "some child" or

"every child," then we obtain a *determined descriptum*. Consider for instance "Some children as being afraid of every dog," or again "Every dog as frightening some child". In the former case we have the determined descriptum "some children" and the determined description "afraid of every dog"; in the latter case we have the determined descriptum "every dog" and the determined description "frightening some children". These examples illustrate the principle that a descript becomes determined by means of a separate and independent determination of the description-component and of the descriptum-component. In other words, the description is determined *without reference to the descriptum*, and the descriptum is determined *without reference to the description*.

Having so far indicated the distinction between the undetermined and the determined descript, we must consider the distinction in mental attitude to which the transition from the one to the other construct may lead. The mental attitude adopted towards the undetermined descript is that of mere apprehension. In passing to the determined descript we have passed from the attitude of mere apprehension to that of *proposing*; and the construct so obtained is therefore called a proposition, towards which we may be explicitly preparing to adopt an attitude of interrogation. We may compare the term "proposition" with "supposition": whereas the former suggests the preparation for a *direct* interrogative attitude, the latter suggests the preparation for an *indirect* interrogative, in which we consider the consequences which would be entailed by asserting the proposition in question. Thus the same construct might be called either a proposition or a supposition according as it is taken up in the attitude of proposing or of supposing. In the same way many terms, such as presumption, assumption, presupposition, and so on, stand for the same construct—that might be called a proposition—towards which we are adopting one or other of the various attitudes of presuming, assuming, presupposing, etc. Thinking, as so far analysed, consists in the apprehension of a quality as characterising a given object; but we must recognise another aspect of thinking which goes beyond *mere apprehension*. What I have here called *mere apprehension* has been usually contrasted with *belief*, and it is agreed that belief necessarily *involves* apprehension. Now the object of belief is called a *proposition*, so that a proposition may be defined as an object of *possible* belief;—possible, because while the object of belief is always a proposition, the proposition may be merely apprehended without being believed; or

it may be entertained in some attitude opposed to belief, such as disbelief or doubt. To doubt a proposition implies that we neither believe nor disbelieve it, while belief and disbelief, as opposed to doubt, have in common the characteristic that may be called assurance. Thus there are three opposed attitudes towards a proposition included in the distinction between doubt and assurance; the latter of which may be either (assured) belief or (assured) disbelief, and the former of which appears to be susceptible of varying felt degrees.

We must consider in further detail what is involved in converting an undetermined descript into a proposition, beyond the fact that all the references must be determined. Returning to the principle that a descript becomes determined by means of a *separate and independent* determination of the description-component and of the descriptum-component, it is to be noted that this mutual independence effects a severance between the descriptum and the description, which are therefore united in the proposition—not only by the characterising tie but also by what we may call the *assertive tie*. The blending of the assertive tie with the characterising tie is expressed in language by the transition from the participial or relative clause to the finite or declaratory form of the verb. Thus in passing from "a child fearing a dog" to "a child fears a dog," the characterising tie joins the same elements in both cases, but is, in the latter, blended with the assertive tie. That the assertive tie is blended with the characterising tie is further shown by the modifications "is-not," "may be," "must be," by which the verb "to be" is inflected, in order to indicate variations in the assertive attitude. The copula "is" of traditional logic is now seen to be a blend of the characterising with the assertive tie.

We thus see that the proposition, as such, is a kind of construct to which we may stand in a unique kind of attitude, determinable in more or less opposed modes. These different modes may be termed *assertive*, and the several specific determinations of the (generic) assertive attitude are known as asserting, denying, supposing, doubting, and so on. Now any assertive attitude is an occurrent relation of the thinker to the proposition—regarded as a *whole*—and not a relation to its parts. Thus the term proposition can only be defined by reference to the notion of an assertive attitude. As so defined, a proposition may be conveniently termed an *assertum*; i.e., the kind of construct towards which we may adopt one or other of the variable modes of the assertive attitude. Now when G asserts or doubts or denies that "Everything [or something] that is *p* is *q*," his assertive attitude is directed

to the proposition as a whole; and this relation to the proposition as a whole involves *the relation of apprehension* to the component adjectives *p* and *q*. We have to examine the question whether this entails a relation to the *descriptum*—Everything that is *p*. Compare the above statement that “G asserts that everything that is *p* is *q*” with the following: “With respect to everything that is *p*, G asserts that *it* is *q*”. In this latter case G stands in a definite relation to the *descriptum*—Everything that is *p*. The distinction between the two cases may be made clear by several considerations. Thus, let us construct a syllogism by introducing a minor premiss. In the latter case, we should take as minor (say) “This is *p*” and infer that “G asserts that *this* is *q*”. But, in the former case, the required minor would be “G asserts that this is *p*” in order to reach the same conclusion. In fact, premisses can only be joined to elicit a conclusion, when they are put together at the same time by the same asserter. This was illustrated explicitly in the case of G’s two assertions above; but it is implicitly involved also in the other case, where the two premisses must be understood to have been asserted by the same person (say H). Another way of emphasising the distinction between the two cases is shown by substituting for *q* the negative not-*p*. We should then have to contrast (1) “G asserts that everything that is *p* is not-*p*” with (2) “With respect to everything that is *p*, G asserts that *it* is not-*p*”. The former is a case in which G would be guilty of self-contradiction, the latter merely a case of error on G’s part. Now the above assumes that the reference intended by the word ‘this’ or by such a phrase as ‘Every thing that is *p*’ or ‘Something that is *p*’ can be taken as a component out of the proposition and objectively identified for different thinkers or even for the same thinker at different times. This in general is not possible. Hence we are led to the problem of what it is that can be universally identified as object of reference.

Having so far considered the proposition in its mental or *subjective* aspect, we have next to examine it in what may be called its *objective* aspect. Whereas a proposition is related subjectively to *assertion*, we shall find that it is related objectively to *fact*. Our conclusion, briefly expressed, is that any proposition *characterises* some fact, so that the relation of proposition to fact is the same as that of adjective to substantive. The word *fact* is more or less appropriately associated with propositions of different kinds. First, we have propositions characterising particular events; secondly, propositions which generalise with respect to the character of

events ; thirdly, formal propositions which enter into pure logic and pure mathematics. The word *fact* is most naturally associated with the first kind of proposition ; it is applied less appropriately to the second ; and hardly ever to the third. The first two kinds of proposition may be called existential. The universal feature of existential propositions is their implicit reference to temporal connexions ; and a class of them have the further common feature of implicit reference to spatial connexions. We have taken as the most primitive form of proposition : "a certain manifestation of thunder has occurred". We may say that this proposition characterises (correctly or incorrectly) a certain occurrent fact. In this case there appears to be no distinction between what is meant by a certain manifestation and a certain fact ; in other words, we may indifferently say that the proposition 'it thunders' characterises the fact, or that the adjective 'thundering' characterises the manifestation. Now the barest form of proposition would be expressed thus : a certain manifestation has occurred. We may assume that the circumstances in which this proposition is asserted are such that—the reference (indicated by the phrase 'a certain') being understood—the assertion is indubitably true. We shall find that the word *fact* can never be used except in association with a residual proposition which must be assumed to be *true* ; thus the association of *fact* with *true* proposition is precisely analogous to the association of what is ultimately *given-to-be-characterised* with what is *real*. Again passing from the barest form of proposition to one in which character is to some degree determined : a certain manifestation of thunder has occurred. This proposition cannot, like the previous one, be assumed to be true. It is, however, a further specification of the previous proposition which we said could be assumed to be true and thus to express a fact. Now, when we proceed to speak of the *fact* that a manifestation of thunder has occurred, and supplement this by a further predication—*e.g.*, by stating that this *fact* has certain consequences, this last statement could not be true, and might even be regarded as non-significant, unless the proposition expressing the fact of the manifestation being one of *thunder* had been true. Starting then with the residual fact expressed in a proposition, at each stage in the process of characterising the fact, we construct a proposition which must be taken to be *true* as a condition required in order that any further characterising of the fact may be true. It is in this way that the term *fact* comes to be inevitably associated with a *true* proposition, rather than with a proposition either *true* or *false*.

Now we have said that a proposition characterises a fact; and from this we see that a proposition could not be either true or false unless ultimately we could characterise a fact truly, as in the bare proposition : a certain manifestation has occurred.

Let us illustrate the way in which facts enter as constituents into propositions by the following :—

"That, during the Commonwealth, the dominance of Puritanism, which followed upon the execution of Charles I. in 1649, produced by reaction the evils of the Restoration period ; largely accounts for the milder form of opinion and conduct, adopted by the reformers during and after the revolution of 1688, when the power of the Stuarts was finally destroyed."

This sentence, the understanding of which essentially requires attention to punctuation, is the expression of a proposition characterising one large fact, constituted out of many sub-facts connected in various ways illustrating temporal or causal nexus. We will give some analysis of this sentence for purposes of exposition. Take the proposition that "Charles I. was executed"; this, we say, characterises a certain fact. How then can we identify the fact previously to or apart from such characterisation? Let us suppose that a spectator who was present says, "Something is happening," and asks "What is happening?" His assertion, which expresses a bare fact, is indubitably true; and his interrogation is a request for a characterisation of this fact. But many intermediate steps, in which the fact is partially characterised, might be interpolated before we reach the proposition that "Charles I. was being executed". It is a condition for the truth of this proposition that each of the propositions into which it could be analysed should truly characterise the sub-facts. We may now dispense with this analysis and take the proposition as it stands to truly characterise the fact expressed in the assertion "Something is happening". It is important to note here, what is further involved in the relation and distinction between fact and proposition, that the same fact may be truly characterised in very many different propositions the combination of which would constitute a true characterisation of *fuller determinateness* than any of the partial propositions. Moreover, without adding on one proposition to another, we may render any proposition more determinate, and so characterise the same fact with different degrees of precision. Hence we cannot speak of *one* proposition corresponding to *one* fact, since there may be many true propositions corresponding to the same

fact. We proceed to consider the proposition "Charles I. was executed in 1649". This is a further specification of the fact characterised in our previous proposition. It is what we have called an external characterisation of the fact. In considering the logical punctuation, we must put the dating outside the bracket expressing the fact that Charles I. was executed. But in predicating the date 1649, we are not predicating a character of the *proposition* that "Charles I. was executed," but of the *fact* (characterised by the proposition) that Charles I. was executed. This illustrates the importance of distinguishing as to whether it is a fact or a proposition that enters as a constituent in a construct; because the same verbal expression is used for both. Thus Charles I.'s execution took place in 1649 is a predication about a fact; whereas, Charles I.'s execution is recorded in Macaulay's history, is a predication about a proposition. Here again the notion of a proposition cannot be explained, except in terms of assertion; thus, it is implied that Macaulay *asserted* that Charles I. was executed; and it may be further suggested that Macaulay's assertion is a ground for our asserting the same proposition. Similarly when we say that one proposition *implies* another, we mean that the assertion of the one would justify the assertion of the other. Again, when we predicate of a proposition that it *is* true, we mean that any person's *assertion* of the proposition *would* be true. From this we see that such an adjective as 'true' or 'false' or any relational adjective such as 'implying' or 'compatible with' is commonly predicated of a proposition (and not of an assertion), only because the truth or the falsity or the relation of implication or compatibility holds universally (if at all), independently of the person asserting or the time of his assertion. Again, we may predicate of the *proposition* that Charles I. was executed, that the logical justification for its assertion is human testimony, or that it is approximately certain—in contrast to other propositions of which we might predicate that their assertion is justified by general experience, or again that they are highly dubious. Such predications illustrate two points; namely, that a predication about a proposition is to be interpreted ultimately as a predication about an assertion; and that the adjectives (including relational adjectives) predicable of a proposition are of a different kind from those predicable of a fact. One of the essential characters predicable of a fact is its date, which involves indirectly a temporal relation to other facts, and leads to specific propositions, in which temporal relations to assigned facts are predicated. Again the predication of a

temporal relation or connexion between one occurrent fact and another may develop, in a further process of factual characterisation, into the predication of causal relation between the two occurrent facts. The generalisation of such predications is what is called a causal law. In formulating the causal law, reference is made both to the internal characterisation of the occurrent facts and to their external characterisations, *i.e.*, the temporal and spatial connexions between them. In saying that adjectives predicable of assertions are of a different kind from those predicable of facts, we must not forget that an assertion itself is an occurrent fact, and that therefore the same kind of adjectives that are predicable of occurrent facts in general are predicable of any assertion, regarded as a mere fact. In particular, an act of assertion may be dated, and hence enters into temporal relations with other facts; and, when the act of assertion is attributed to a certain person, we can predicate causal relations between it and other facts of experience that may have occurred in the life of the person. We must therefore more precisely define the distinction between what may be predicated of an assertion as a mere psychical fact, and what may be predicated of the assertum or proposition asserted. A predication about a proposition must be defined as a predication primarily about an assertion, but one which holds independently of the time of the assertion and of the person asserting. Thus, when any predication about one person's assertion at one time necessarily holds of the same or another person's assertion at the same or at another time, this must be because the content of the two assertions is the same; and hence the predication, which is primarily about the assertion, is transferred to the proposition, or that which is asserted. If, on the other hand, the predication about an assertion holds only on account of the temporal and causal circumstances under which the assertion is made, then such predication is about the assertion as a mere psychical fact. For example, if a person's seeing of lightning causes him to assert that there will be thunder, this predication of causal relation is one about the assertion as a mere psychical fact. If, on the other hand, we predicate about the assertion of thunder that it would be justified whenever an assertion of lightning were justified, then we are predicating about the assertion of thunder a relation which holds independently of the person making the assertion and of the time at which the assertion is made. With regard to the *time* of an assertion in this last reference, it is of course obvious that the time at which the assertion is made does not mean the same

as the time at which the asserted fact takes place. It is obvious that the fact of assertion is different from the asserted fact; and hence that the time at which the fact of assertion occurs may be different from the time at which the asserted fact occurs. When we state, therefore, that a predication about a proposition holds independently of time, we mean independently of the time of the act of assertion, not independently of the time of the asserted fact, which latter is of course part of the content of the proposition. Turning to the historical illustration, it will be seen that the constituents of the complex proposition are *facts*, not propositions which characterise the facts; and that the adjectives (including relational adjectives) which are predicated of the facts, are in every case temporal or causal. Taking our historical example, we will resolve it so as to show briefly its constituent facts, and the points in our discussion which it illustrates. The constituent facts are as follows:—

- (a) A commonwealth was established (after 1649).
- (b) Puritanism was dominant (after 1649).
- (c) Fact (a) was simultaneous with fact (b).
- (d) Charles I. was executed (in 1649).
- (e) The Stuarts were restored (after 1649).
- (f) The restoration of the Stuarts was attended by certain evils.
- (g) Fact (b) caused fact (f).
- (h) A revolution occurred (in 1688).
- (k) The power of the Stuarts was finally destroyed.
- (l) Fact (k) occurred after fact (h).
- (m) The opinion of the reformers was milder in 1688 than in 1649.
- (n) The conduct of the reformers was milder in 1688 than in 1649.
- (r) The fact that fact (b) caused fact (f) caused facts (m) and (n).

This brief summary illustrates first, that the temporal order of assertions is not necessarily the same as that of the facts asserted. Secondly, that the logical conjunctions uniting assertions may be transferred to the facts asserted without change of import. This may be expressed by the following mode of bracketing: the *joint* assertion of (fact *m* and fact *n*) is equivalent to the assertion of the *joint* fact (*m* and *n*); and so of the other facts *a*, *b*, *d*. . . . Similarly, although our example does not illustrate any conjunction but 'and,' the *alternative* assertion of (fact *m* or fact *n*) is equivalent to the assertion of the alternative fact (*m* or *n*). In speaking of the alternative (*m* or *n*) as representing a *fact*, we are recognising

the principle that any characterisation of a fact may be more or less determinate; thus the characterisation of a fact as *m* is less determinate than the characterisation of it as (*m* and *n*) and more determinate than the characterisation of it as (*m* or *n*). The fact, of course, may be said to be absolutely determinate, but *m* and *n* here—as elsewhere—stand for the *characterisation* of the fact. In the third place, the summary illustrates the principle which I previously expressed as follows: At each stage in the process of characterising a fact, we construct a proposition which must be taken to be true, as a condition required in order that any further or more determinate characterising of the fact may be true. Thus each of the propositions into which we resolved the sentence, *where a date or temporal characterisation is inserted*, is a proposition which would not be true, and might even be considered non-significant, unless the *undated* proposition were assumed to be true. Again each of those propositions in which we assert the relation of simultaneity or before or after, could not truly characterise the larger fact unless the minor facts themselves, between which the temporal relation is asserted, have been truly characterised in the *constituent* propositions.

So far we have restricted our discussion of facts to *occurrent* facts; we have now to consider whether the term fact can be appropriately used, in relation and contrast to proposition, in a wider sense. Compare the proposition “Charles I. is being executed” with the proposition “*a* is greater than *b*”. The former may be said to be based upon the less determinate proposition, “Some kind of thing is happening there and now”; and upon the interrogation, “What kind of thing?” It may therefore be expressed: “What is happening there and now is the execution of Charles I.” In the same way, the latter proposition may be said to be based upon the less determinate proposition, “Some relation of magnitude subsists between *a* and *b*”; and upon the interrogation, “What precise relation of magnitude?” It may therefore be expressed: “The relation of magnitude of *a* to *b* is as greater than to less than”. In both these cases the question asked refers to a subject-term that is presented with the determinateness required for a determinate answer. In short, the subject term is assumed to be determined uniquely. In the spectacular proposition, the words ‘there’ and ‘now’ may be accompanied by actual pointing, so that the same reference may be understood by the speaker and hearer: this is an example of a unique description, the uniqueness of which is not secured by mere verbal phrases that could be

understood apart from context, but mainly by the gesture which accompanies verbal expression. Granting that the reference in the subject-term is thus unique, a true answer might be given in more or less different forms of proposition; or, as we might say, the same uniquely determined fact may be truly characterised from various different aspects. Similarly the subject term—*viz.*, the relation of *a* to *b*—in the arithmetical example, is uniquely determined by a description intelligible apart from context (though again here *a* and *b* might be names of objects presented to the senses and pointed at). Hence the answer required is determinate. Here again a true answer might be given to the question, "What specific relation holds?" in more or less different forms, for example, "As 5 to 3," instead of "As greater than to less than". Thus the arithmetical proposition characterises, we may say, a fact, namely that *a* has to *b* some relation of magnitude; and this fact is given, with a relatively indeterminate characterisation, to be more determinately characterised.

We have shown that to the same question of fact various different true answers may be given; this leads to the problem of false propositions. We may begin by defining a true proposition as one which is in accordance with a fact. From this definition it would seem natural to define a false proposition as one that is *not* in accordance with *any* fact. This inference would follow if, in defining a true proposition, we had used the word "a fact" in the sense of "some fact," *i.e.*, as an alternative indefinite. Now in order to bring out the *relation* between truth and falsity, we must speak of the true proposition as being in accordance with a *certain* fact, and the (related) false proposition as being in *discordance* with the *same* fact. The truer definition, then, of a false proposition is that it is one which is in discordance with a *certain* fact. If we had defined a false proposition merely negatively, as being not in accordance with any fact, then the false proposition might be towards every fact in no one relation whatever, or in some relation—say parentage—to *some* fact, and in the relation say of cause to some other fact, and in the relation of say "greater than" to some third fact, and so on. There is indeed one relation in which a false proposition stands to *all* facts, namely the relation of non-identity; but, inasmuch as the same holds of true propositions, this will not provide us with the required differentia. This shows that the definition of a true proposition as being in accordance with *some* fact is incorrect, because if the subject of a proposition is not uniquely understood, a false proposition might

be in accordance with some fact. For example, the proposition "This man is tall" might be false, and yet be in accordance with *some* fact. Thus taking the proposition "This man is short" to be true, the proposition that "This man is tall" would be in accordance with some fact, and could therefore only be pronounced as false when we had secured reference to the same fact in the two propositions, namely, the height of the same man. In short, it is obvious that in pronouncing the proposition "This man is tall" to be false, we do not mean that it is not in accordance with any fact, but that it is in discordance with a certain fact. Many propositions may be in accordance with the same fact, and merely because one proposition is in accordance with a certain fact, it does not follow that a different proposition relating to the same fact is false; there must be some positive relation between two propositions relating to the same fact in order that the falsity of the one should necessarily follow from the truth of the other. This positive relation is that the one is in accordance with, and the other in discordance with one and the same fact.

There are many pairs of terms which seem to present the same antithesis, such as true and false, affirmative and negative, acceptance and rejection, accordance and discordance, affirming and denying, etc. In my own view, there is, indeed, one single antithesis to which these expressions point. The consequence of this is that, in the attempt formally to define one pair of terms, we are apt to use another pair of terms, and are thus in danger of circular definition. Another difficulty in defining these terms arises from a certain ambiguity in the use of the word 'not'. For example, if we defined 'false' as meaning 'not true,' such definition would involve two mistakes: in the first place, it is only of propositions that 'not true' would coincide with false; and in the second place, amongst propositions, the relation of the true to the false is not *merely* that they constitute two sub-divisions of propositions that are (taken together) exhaustive, and (taken separately) exclusive. In fact, any attempt literally to define the antithesis between true and false seems inevitably to involve the prior understanding of the meaning of the terms, and of their antithesis. I think we can best avoid circular explanations by not attempting to define the *general* meaning of the terms true and false, but rather by taking a pair of *related* propositions such that the truth of either of them involves the falsity of the other. In order that this relation may hold between two propositions, we may say in the most general case that they refer to the same fact; we

then attempt to define the fundamental antithesis by means of the conception of accordance and discordance. We have already indicated that discordance does not merely mean non-accordance.

It will be found that the word '*not*' has a different meaning when prefixed to a substantive from that which it has when prefixed to an adjective; but it is only in the latter connexion that its proper significance can be understood. Language frequently supplies us with the negative prefix as part of the adjective word, for example, incompatible, dishonest, unusual, etc., but where ordinary language does not supply an adjectival prefix, we can always place '*non*' before the positive adjective, as in *non-identical*, *non-red*. We ask, what is the relation of *non-red* to *red*? It might be answered that '*non-red*' means '*non-identical with red*'; but inasmuch as '*hard*' also is *non-identical* with *red*, the assertion that a thing is '*non-red*' would be compatible with the assertion that it is '*red*', if *non-identity* were the only relation which held between *red* and *non-red*. Again, if this were so, '*non-identical*' would mean '*non-identical with identical*'; but *non-identical* is also '*non-identical*' with *incompatible*, or any other relational adjective; so that the same question arises upon the meaning of *non-identical* as upon the meaning of *non-red*. The relation of '*non-identical*' to '*identical*' or of '*non-red*' to '*red*', etc., may be said to be that of *incompatibility*. This would seem to raise a question as to the relation of *incompatibility* to *compatibility*; since the prefix *in* here has the same significance as the more general prefix *non*. We can only say that '*incompatible*' means '*incompatible with compatible*'. This is equivalent to saying that *incompatible* cannot be defined; or, to put it otherwise, *incompatible* is just as ultimate a positive relation as *compatible*. In order, then, to assert that a thing is *non-red*, we must be able to assert that it has some quality—not merely *non-identical with red*—but *incompatible with red*. The same applies to the relation '*non identical*' itself; in order to assert that *a* is *non-identical* with *b*, we must be able to assert that it has some relation to *b* *incompatible with identity*. Now the only relation *incompatible with identity* is *otherness*. We ought, then, to have amended our original definitions, and substituted: the adjective *red* is *other than* the adjective *hard*; the adjective *blue*—which is an example of *non-red*—is *incompatible with red*; the relation '*other than*' is *incompatible with* the relation '*identical with*'. These three examples bring out the additional points that whereas '*other than*' is the only relation *incompatible with* '*identical with*',

blue is not the only adjective incompatible with red; and that in stating that red is merely other than hard, we suggest that red is compatible with hard. Such adjectives as 'non-identical with,' 'incompatible with,' in which the negative is prefixed to the adjective-word, are legitimately used as positives whenever there is a *strictly dual* incompatibility. It is doubtful whether logicians have not been sometimes mistaken in supposing that all cases of incompatibility can be regarded as *dual* incompatibility, whereas this is the exception rather than the rule. Incompatibility in general has been technically termed contrariety; and dual incompatibility, contradiction. Now although the negative predication non-red can be treated, in purely formal processes, under the same rules as the positives red or blue; nevertheless, when we are examining philosophically the conditions necessary in order that such predications as non-red may have any import at all, we must conclude that such import is derived from incompatibility in general. The difference of function between the terms red and non-red is that, since red is comparatively determinate, non-red is comparatively indeterminate; the general rule being that of two contradictory terms, one positive and the other negative, one is indeterminate, and the other determinate in comparison. This rule follows from the fact that the total number of predications which are all mutually incompatible is generally considerable; and therefore if one of the terms includes a small number of alternatives, the other will include a large number.

We have now reduced the problem of the negative to the question of the nature of incompatibility. We had previously spoken of a pair of related propositions, one of which was in accordance and the other in discordance with a certain fact. That there are such pairs of propositions is the condition for conceiving and applying the relation of incompatibility. Thus, in examining the content of two propositions, we may discern that if one of them is in accordance with a certain fact, the other must be in discordance with that fact, without our knowing in the special case which of the two is in accordance and which in discordance; we express this relation by saying that the two propositions are incompatible with one another. The proposition which is in accordance we call true; that which is in discordance we call false. We affirm or accept the former, and we deny or reject the latter. We have said that affirming and denying are in the same antithesis as true and false; this, of course, does not mean that a proposition that has been denied is the same as a proposition

that is false. What it means is that the denial of a proposition is equivalent to the assertion that the proposition is false; and that the affirmation of a proposition is equivalent to the assertion that the proposition is true. In other words, the attitude of denying or affirming a primary proposition is equivalent to the attitude of asserting the derived secondary proposition in which falsity or truth is predicated of the primary. Again, we have reduced the antithesis of affirmative and negative to that of accordance and discordance; but this does not mean that the affirmative proposition is that which is in accordance, and the negative that which is in discordance with fact. For instance, supposing a thing to be yellow, the negative predication 'not red' would be in accordance with the fact, and the positive predication 'blue' in discordance with the fact. That is to say, 'not red' is here in indeterminate accordance with the fact, 'yellow' in relatively determinate accordance, 'not yellow' in indeterminate discordance, and 'blue' in relatively determinate discordance. In extending this principle, it will be enough to take the two forms of proposition from traditional logic, "Every P is Q" and "Some P is non-Q". The fact with which one of these is in accordance is the same as the fact with which the other is in discordance. For example, the actual fact might be truly characterised by the proposition, "Every P is QU"; in this case our universal would be true, and our particular false. On the other hand, the fact might be truly characterised by the proposition, "Every PV is non-Q". In this case our particular would be true, and our universal false. In this example I have chosen for the proposition which actually characterises the fact, a proposition more determinate than the original proposition (universal or particular). This was done for the purpose of illustrating the general principle that the *fact* is always actually characterisable by a proposition that is (indefinitely) more determinate than any proposition which a mere human being could discover or even conceive. Thus, if "Some P is non-Q" is true, the actual fact will be more determinately characterised by a proposition that indicates, first, *which* amongst all the objects that are P are Q, and which are non-Q; and secondly, amongst those which are non-Q, which are characterised by some one quality incompatible with Q, and which by some other. Induction, indeed, is the process in which we try to approximate to such more completely determinate knowledge, by replacing the merely indefinite particular proposition of formal logic by a set of sub-universals, to each of which the proper determinate predicate is attached. Thus, "Every PV_1 is Q_1 ," "Every PV_2 is Q_2 ," and so on.

I have said that some logicians have in effect taken the relation of contradiction to be fundamental in place of contrariety. But many of the opposite school of logicians have apparently fallen into the reverse mistake, namely of attributing priority to the contrary in place of the contradictory; *i.e.*, they appear to have argued that we must always base our assertion of the contradictory upon a knowledge of the contrary. Now it is true that in many very important cases this is so; but in an equal number of equally important cases we are able to assert a mere contradictory or a relatively indeterminate contrary, before we can assert the more determinate contrary; and in any case we can never know the contrary in its complete determinateness. We must adjust the balance properly between these two opposite errors. On the one side, we maintain that our *conception* of the contradictory is based upon our conception of the contrary; on the other side, that our *knowledge* of the contradictory very frequently comes before our knowledge of the contrary. What I have maintained is that when we know that the contradictory holds, we know that *some* contrary must hold, but we do not necessarily know *what* contrary.

We must conclude by returning once more to the conception of a fact as that which the proposition characterises. We have seen that, in general, we cannot find any substantival or existential component of the proposition as an object that could be identified for all persons and for all times. But the *fact* to which any given proposition refers can be so identified. We may speak of one assertion and another assertion as characterising the *same* fact; and again of two assertions as characterising *different* facts. The fact, as determinandum for thought, can be objectively identified as the ultimate object of reference; while the proposition is the character more or less determinately apprehended as characterising the fact. The formula which finally expresses the blending of the assertive with the characterising tie is thus: The fact F asserted by the thinker T to be characterised by the proposition P.

II.—SOME OBSERVATIONS TOUCHING THE COSMIC IMAGINING AND “REASON”.

(Written October, 1917.)

BY DOUGLAS FAWCETT.

IN responding to Prof. Stout's invitation to reply to critics of the *World as Imagination* I find myself in this fix. The longer and more important notices by Dr. Schiller,¹ Dr. Bosanquet,² Mr. Bertram Keightley,³ and Mr. Douglas Ainslie,⁴ raise very interesting issues but criticise, withal, only the general trend of the work. And other reviews, in the main very friendly, contain few considerations which would have weight with the experts who read this quarterly. In no case, so far as I am aware, has the detail of the new metaphysical venture been criticised. This being so, my task here will be to restate briefly the motives which led me to frame the hypothesis of the Cosmic Imagination and to reply at the same time to a few general criticisms which may prejudice its claim to be tested at length.

Ultimate all-inclusive reality, so runs the hypothesis, is best regarded as imaginal; as conscious activity whose content resembles what, as directly lived by us, we call imagining. It is not urged that the other aspects of human experience are “unreal” or “illusory,” it is suggested that this imaginal aspect reveals the Eternal World-Ground less darkly than do the others, shows it to us less transformed in the guises which it takes on in the conflicts of time-process. The hour is such as to invite experiment. Many of us are tired of the old shibboleths. “All over Europe before the War,” writes Dr. Schiller, “academic lecture-rooms only re-echoed, in all essentials and with minor or minimal variations, four great substantive voices of antiquity, two of them Greek, Plato and Aristotle, two of them German, Kant and Hegel, and

¹ MIND, July, 1917.

² Hibbert Journal, March, 1917.

³ The Quest, July and October, 1917. “The Cosmic Imagination,” “The Imaginal World-Ground”.

⁴ The Observer.

philosophy, instead of advancing with the steady sureness of science, rehearsed only the old problems and the old debates. Nor was the situation materially different in America.¹ Bergson, it is true, had stirred thought with "Creative Evolution". But he had not dismayed the conservatives, and his doctrine of the *Élan Vital* failed to sound the depths of the World-dynamic. Bergson, shall we say, had discussed in terms of "life" a creative activity which we can unveil yet further, knowing it as we do intimately and from the inside in ourselves. My attempt at an advance was called for, not, as Dr. Bosanquet seems to think, to gratify a liking for novelty, but to remedy, if possible, existing failure. Current available hypotheses about the World-Ground proving unsatisfactory, someone had to take a risk and launch another. After all, philosophy has to progress by its votaries *imagining* novel solutions and applying them tentatively to the field of experience. Thus was born the imaginal hypothesis which we are to consider: a step forward, it may be, in a direction which has been indicated already, if darkly, by writers of such different types as the philosopher Frohschammer and the poets Shelley and Blake.

We are driven, then, to metaphysical experiment simply because the available rival hypotheses, on being tested, conflict with experience. Thus you desire, let us say, to retain idealism; idealism which need not, of course, be "subjective" and ought, indeed, to be as "objective" as the veriest neorealists could desire. Well; you cannot rest in idealism as it comes to us from Hegel. The hypothesis that a dialectically-articulated "Reason" or Logical Idea is sole ground and "sovereign of the world"; that the realms of Nature and Mind are, as Hegel believed, just "applied logic," are "a particular mode of expression for the forms of pure thought," confronts insuperable difficulties and can have few, if any, thoroughgoing advocates to-day. The hypothesis, as I have urged at length elsewhere, is not elastic enough to be stretched along the whole front of empirical being. Dr. Schiller suggests that this "wildly whirling world" does not look much like a work of Reason "similar enough to ours to be reasonably called one!"

Schopenhauer (who proffered a very unsatisfactory rival hypothesis about the World-Ground), said much the same thing, while a revolt against the once honoured metaphysics of "Reason" marked the more mature thought of the plastic Schelling. To-day, to be sure, we still hear much of "Reason"

¹ MIND, October, 1917.

from neo-Hegelians, but we note also that admirers of Hegel no longer man the trench in which their hero fought and died. They have abandoned "according to plan" the Dialectic, so indispensable to his position, and they treat of "Reason" and the "rational" in ways that mark, in fact, a most decided retreat. No longer is "Reason" the Hegelian sole 'substance,' 'energy,' and 'sovereign' of the Universe.¹ But modern thinkers who teach a Hegelism without Hegel are prone to be unclear as to what the time-honoured sonorous term "Reason," used in a metaphysical regard, actually means. Finding no clearly expressed and adequate meaning in modern Hegelistic literature I sought help by letter last May from Dr. Bosanquet who replied that for him, at any rate, "Reason" stands for "*nexus to unity*". Unfortunately this statement, while definite enough, leaves much to be desired. It is certain of course that Hegel would not have regarded a mere "*nexus to unity*" as sole 'substance,' 'energy,' and 'sovereign' of the world! But Hegel, it will be said, has been left behind and the "*nexus*" in question must be considered in a new setting. Well and good. There remain, then, the criticisms (1) that "*nexus to unity*" implies time-succession and can, therefore, be nothing basic in a Bosanquettian Universe which is supposed to transcend time; (2) that the terms between which the "*nexus*" holds are not themselves covered by this new definition of "Reason" so that, apart from the "*nexus*," they lie, perhaps, outside the alleged rational essence of the real. It is not enough for advocates of rationalism to stress the "order and connexion" of "things," unless the "things" ordered and connected are shown to have their roots in the "rational system" of the world. The whole-souled panlogist might protest that the completely "rational system" of Hegelism has been forsaken for one which is lopsided and incomplete. The "Reason" is no longer cosmic, no longer all-embracing, all-inclusive. On the other hand the Imaginal Hypothesis, as we shall see, provides fully for conservative "order and connexion" without crippling itself with the view that "Reason" is the basis of anything and everything that exists. Cosmic imaginal activity is expressed in "order and connexion," but its general character seems not to resemble closely the psychologic processes and results which we call

¹ "While it is exclusively its own basis of existence and absolute final aim it is also the energising power realising this aim, developing it not only in the phenomena of the Natural but also of the Spiritual Universe —the History of the World," is Hegel's attitude as expressed in the *Phil. of History* (Sibree's Transl.).

"reason" in ourselves and, further, it comprises also very much of the real that no sane man can call rational at all. It was in view of this domain of sub-rational fact that Hegel declared that Nature is too weak to exhibit "Reason" everywhere, that much present to our experience is without meaning. And assuredly the existence of lunatics or the Great War in a system, wherein the real is said to be rational and the rational real, is one of those things that "fellers," other than Lord Dundreary, may be pardoned for failing to understand. Such "appearances," in fact, declare the inadequacy of the experimental hypothesis concerned.¹

The term "Reason" is used with such different meanings, vague and clear, that it is no longer suitable for philosophy without an explicit preliminary declaration of one's purpose in using it. Thus when Royce views it as "the search for truth as such"² he has apparently in view a movement in finite sentients. His Absolute lacks nothing, strives after nothing. But when Mr. James Tuckwell defines "Reason" as "the activity in us and in all things of the one all-inclusive, all-pervading Reality,"³ he is looking beyond this and that finite sentient and considering Reality at large. The objection to this all-inclusive Reality being called "Reason" has been mentioned already. The Reality can hardly be sufficiently like the groping and stumbling reason, of which we have knowledge of acquaintance, to warrant such naming. The "activity" which Mr. Tuckwell has in view seems better symbolised by the elastic and inclusive concept of the Cosmic Imagining, which has room for all sorts of contents,—those for instance, realising a "reasonable" purpose of cosmic width and those also making for sub-purposive or "unreasonable" conflict and chaos. Still Mr. Tuckwell's "Reason" is not a name for that daisy-chain of pale categories which is supposed by Hegel to be somehow "specialised and developed to Nature and Mind" and which, only by verbal device, could be discussed as "active" at all. I cite his definition simply to point out what oscillations of meaning mark the use of a

¹ One must add that "Reason" viewed as a Bosanquetian "nisus to unity" is very poorly illustrated by the attempt, say, of a moth to "unify" itself with a flame; an act which, as thwarting *purposive* living, must be classed as irrational if words are to subserve any tolerable function. Many kinds of "nisus to unity" are irrational in this sense. The fact that conservative connexions or 'laws' of nature are exemplified in these cases would not entitle them to be labelled rational. An "intelligible" connexion is not always an "intelligent" one!

² *The World and the Individual*, first series, p. 155.

³ *The Quest*, July, 1917.

word, so fraught with menace to clearness in philosophical thinking.

Suppose, now, that, ignoring later experiments, we take the system of Hegel as the typical philosophy of "Reason"—the system of the logical or rational IDEA. Then our professed amendment is the system (so far as it is reducible to a system) of the imaginal IDEA, that is to say, a World-Ground which resembles more nearly what we call our "private imagining" than it does any other of the experience-aspects present to us. No attempt need be made, as on the too ambitious lines favoured by Hegel, to exhibit completely the 'eternal essence' of this Ground: sentients on our low human level cannot hope to explore the ocean of the infinite in this fashion. But something has been done if we are able to aver that the World-Ground is not unlike certain conservative and creative activity as felt intimately and immediately within ourselves. It is evident that this belief has considerable pragmatical value. Dr. Schiller's critical notice of the hypothesis makes this clear. He allows that the philosophy of the imaginal IDEA or Cosmic Imagining,¹ if it be a romance, is at least a consistent one. He agrees also that "all the other metaphysical explanations involve and presuppose" that imagining on which the hypothesis lays such stress. As Mill wrote, the limits of hypotheses are the limits of imagining. Most welcome too is his opinion to the effect that the Cosmic Imagining "*can really afford to be what other metaphysical principles falsely claim to be, viz., all-embracing.*"² It can be represented as including, not only all reality but all 'unreality'. . . . Its elasticity and tolerance contrast very favourably with the proud and narrow-minded exclusiveness of the ordinary Absolutes, which always in the end ignore the reals of low degree, though they usually begin with a perfunctory parade of their inflexible resolve to absorb all finite things." I do not, it is true, regard Cosmic Imagining as an Absolute among the Absolutes of tradition, not arguing, for instance, toward a 'block-universe' and contending strenuously for the reality of time-succession and for novelty in every causal change. Nor, again, do I label it numerically either one or many; and surely not a barely

¹ A reviewer in the *Oxford Magazine* takes exception to imagination being regarded as the World-Ground and I must allow, seeing that both the conservative and creative aspects of the Ground are discussed as active, that it would have been better to write of the "World as Imagining". But there was the public to be considered and in pioneer work one is wise not to take more liberties than one must.

² Italics mine.

"single principle" of reality, since we have to take note of a live plurality in the conflicts of creative evolution. But I greet Dr. Schiller's main decision with great satisfaction; unlike the rival "Absolutes" the new Power seems adequate. Nature, with all its wealth and variety, order and disorder; furtherings and thwartings of purpose, features fair and foul, "rational" and "sub-rational," may be discussed as an episode distantly akin—"si parva licet componere magnis"—to imaginal creation in ourselves. And we ourselves, again, with our sane concepts and judgments, dreams, errors, follies, hopes and fears, and the indefinite other detail of our affective lives are, like all the other subordinate sentients we wot of, so many eddies in the conscious life of a particular world-system whence, in the slow process of the suns, a new Finite God, born in part of us and our long martyrdom, is to emerge; an Osiris clad in glory after his baleful struggle with Set. And, again, the particular world-system and its conscious overlord, the evolving Finite God, what are even they but spindrift on the ocean of the infinite: of the Cosmic Imagining whose consciousness is the *continuity* of a spiritual universe? Dr. Schiller does not allow that philosophy requires belief in an all-grasping world-principle. But I gather from his comment that, if he thought that such a principle was required, he would incline to turn towards the one which is interesting us now. The inquirer, who takes this initial step, will go very far.

Imagining on the human level covers not merely the conserving and creating of relatively concrete images, e.g., of tables and coats, but the creation of gaunt concepts such as 'energy' or 'negativity' and the framing of hypotheses whose limits, as Mill himself incidentally contends, are the limits of imagining. Mr. H. W. B. Joseph mentions the "logician's imagination" and Mr. Bertrand Russell in *Our Knowledge of the External World* insists that the "logical imagination"—or shall we term it imagining which creates in the spheres of logic and mathematics?—must be developed. Shakespeare imagines when he creates Hamlet's and Falstaff's characters and so does the worker in non-Euclidean geometry or the "physics of imperceptibles". Hegel, again, is imagining when he frames the hypothesis of the logical IDEA or "Reason" and so too are Büchner and Moleschott, the materialists, when they suppose that the gaunt conceptual inventions "Matter" and "Force" are the World-Ground. The founders of popular religions imagine, very often remoulding the world fantastically to suit their hopes and fears. Dickens and Thackeray are imagining when they

describe the emotional ordeals of men who never lived. All social progress is the gift of imagining. It is clear that a psychical activity much wider than mere image-awareness is in view. Human reasonings themselves, as my next work will endeavour to show, are forms of this conservative and creative activity. The "paradox" of the syllogism will, perhaps, trouble us no more when the Imaginal Hypothesis has invaded "psychologic". But the complications of world-imagining with private imagining are formidable and not to be more than suggested in this brief paper.

Like rival hypotheses about the World-Ground, the concept of the Cosmic Imagining is itself an imaginal creation. It is true if the conceptual scheme created serves, sufficiently well for my purpose, as a substitute-fact for the Universe. In other words my private *imagining* in this matter is true if it resembles, at however remote a distance, the general character of Cosmic *Imagining*. Similarly my concept of the Nebular Hypothesis or of the Geological Ages is true if my private imagining corresponds, sufficiently well to serve my interests, "theoretic" or other, with what has happened, independently of my inferences about it, in the imaginal structure of Nature, itself an aspect only of a particular world-system, itself an episode. Time-succession, Space and the "secondary" qualities having a standing in reality, whether present to our sentiency or not, no grave difficulties will be found to invest the "correspondence".

The first marked advantage, then, of the Imaginal Hypothesis lies in this. It does not have to suppose a cosmic 'essence' or 'activity' of fundamentally another character than the imagining which we know directly by acquaintance. Its object (for which the philosopher's conceptual world-scheme is a substitute-fact) is *consubstantial with what represents it*. This is well, since we are not able to grasp the infinite Universe, "about" which we think, in the immediacy of direct intuition. Not confronting the Infinite Imagining, we have to think it through a makeshift which, however, may possess not only a pragmatic "value" but also a considerable leaven of truth. Meanwhile we have the consolation that at one tiny point at least we are in direct touch with this World-Ground itself.

The second and, it may be, the decisive advantage is the "all-embracing" character noted by Dr. Schiller. Cosmic Imagining can hold or create all manner of variety of being—even "potential" worlds indefinitely numerous, even the 'contingency' of the time-process much of which, treated as meaningless and quite unassimilable by his system, so an-

noyed Hegel, even the abominations of life which prompted the revolt of Gautama Buddha and Schopenhauer, even the "alogical" (for which Von Hartmann provided a tyrannical autonomous Will warping the "logical" in disastrous ways!) Imagining can comprise also artistic creation, on the cosmic as on the petty human scale, but it is not clear on the other hand how Hegel's logical IDEA could extrude symphonies, colour miracles and poems. "Applied logic" must not be asked for too much. It is to be feared that "Reason," as Dr. Bosanquet's "nisus to unity," would prove equally sterile.

Imagining, indeed, is the *overlapping* psychical activity, in which all manner of truth-objects can arise and vanish as waves come and go on a sea. Its "elasticity and tolerance" are adequate to every call—adequate also, perhaps, when the final destruction of sheer evil is concerned, is its intolerance.¹ All that fouls the past and present is not to be conserved.

A third interesting point, not mentioned in my book, deserves notice here. It has been urged that the World-Ground resembles private imagining, conservative and creative, more nearly than it does other aspects of our experience. Note now that this private imagining *can* be concerned solely with itself. In private conceptual thought, on the other hand, we have process in which there is reference to reality *other than* the process of the thinking. Now the Cosmic Imagining resembles our most private imagining in this basic regard. It does not refer to *another* reality. It is self-sufficient and by hypothesis there is no other reality beyond it. Its object is no other than the content which fills it. Were it of the character of conceptual or 'rational' thought ordinarily so-called, it would be reaching forward eternally to another contrasted with itself.

Metaphysics is an attempt, made wittingly or unwittingly, to grasp the general character of Cosmic Imagining as seen darkly through a conceptual substitute-system. Its final aim is therefore conservative, though it attains this by way of creative experimental hypothesis. It contrasts thus with the dominantly creative ambition of Art.

"The waves of turmoil," writes Rabindranath Tagore, "are on the surface, and the sea of tranquillity is fathomless": we are urging similarly that the Cosmic Imagining is alike creative and conservative. Time-succession has baffled many thinkers who, like Prof. A. E. Taylor, balk at "the perhaps insoluble problem why succession in time

¹ *World as Imagination*, pp. 252-254 and 270.

should be a feature of experience".¹ It need dismay them no longer. It is impossible, perhaps, to account for the show of succession, even when condemned as 'false appearance,' within an accomplished Universe of "Reason" or like vaguely conceived Ground. But we may counter by urging that an eternally *fixed* Imagining were absurd and suggest that the changing side of this Imagining is just "creative evolution" itself. Cosmic Imagining, in short, being ultimately real, its mode of self-activity is equally real as well. Time-succession is the form of Creation. The presence of an imaginal dynamic in Nature and History, a dynamic already half-visible in those "conservations" and "transformations" which bulk so large in science, is to be suspected. Verified and substituted for Hegel's "universal power," Dialectic, it would prove of commanding importance.² This dynamic, again, in the case of any one particular World-System, seems to *begin*, as the plain man indeed, when discussing evolution, has always held. A Roycean beginningless and endless succession, a "well-ordered infinite series" present altogether to the Absolute, must not be asserted of this or that special world-romance or episode.

The Cosmic Imagining, even if we disregard creative episodes, has a content which is surely not 'timeless' but endures. And alleged "eternal connexions of content" can refer only to aspects of this enduring content. There are eternal truths about the enduring character of imagining; there are minor truths such that, having asserted *x*, we cannot refuse to assert *y*, because *x* and *y* are co-implicated features of total complexes, but who could assert that such complexes themselves must always endure? We may find the task of discriminating alleged "eternal" truths from merely very enduring *conservative connexions* beyond our powers. Who is to be sure that cosmic imagining comprises "necessarily" stable reality in any quarter?

In our own world of change there is an "order and connexion" on which great stress has been laid. It has even been argued that all inference from experience rests on belief in eternal connexions—as if, forsooth, we required complete "necessity" behind our inferences and could not, as the climber in fact does when making inferences about couloirs and routes, take a certain risk! Nevertheless Mr. Joseph, who is among upholders of this view, admits that "the first principles of science rest for the most part on no better

¹ *Elements of Metaphysics*, p. 164.

² *World as Imagination*, pp. 342-376, and 467-473.

foundation than this, that no others have been suggested which explain the facts equally well."¹ And they serve us on the whole as faithfully as we require them to do.

But even when we hit upon the truth, is it not safer as a rule to discuss *conservative connexions* of indefinitely enduring kinds than "eternal connexions," about which we are not in a position to write confidently? "What is the value of an eternal connexion save as a guarantee of particular judgments (applications) and a guide to the prediction of happenings? The scientific law or universal is no doubt more valuable than a particular observation because it can lead to an indefinite number of such observations. But for all that scientific generalisations are constructed on a basis of particular observations, and must ultimately show themselves relevant to the course of events. If they fail to do this they become unmeaning, and, sooner or later, we balk at calling them untrue."² In a world-order in large part experimental, one from much of which changing reality escapes, there must arise many conservative connexions which are moribund and fade eventually into the void. The imagining that creates can also, at need, and in the attaining of perfect reality, destroy.

Cosmic Imagining comprises, then, conservative connexions, some of which endure indefinitely and some of which may have a brief career. Many of these stable connexions subserving wide purposes can be called, if you like the term, 'rational'. But not all such connexions can be labelled in this way; thus 'laws' or 'habits' of Nature may be exemplified in situations of futility and sheer evil. Hegel himself has to regard portions of Nature as without meaning.

Only a few features of the Imaginal Hypothesis can be noticed now. But I ought, perhaps, to indicate its relation to mysticism. It purports to supply the intellectual foundation for a mysticism that starts, as Dr. McTaggart would say, "from the understanding". Cosmic Imagining has no place, save in finite sentients, for the substitute-facts known as concepts and does not generalise or 'deduce' syllogistically or extra-syllogistically, but enjoys the higher immediacy of feeling in which thought and thought-about, idea and reality, coincide.³ When the mystic longs for a direct world-grasp,

¹ *Introduction to Logic*, p. 468.

² Dr. Schiller, "The Import of Propositions": A Symposium. *Proceedings of the Aristotelian Society*, 1914-15.

³ In *World as Imagination*, p. 142, occurs a passage: "If I could aware the 'State' in the fulness of immediate presence, with all its complicated human activities experienced concretely together, I should not need a

for comprehension in its complete form as rich and satisfying as a fully felt complex of colour or sound, it is likely that he has in view a concrete cosmic imagining—is dreaming of the goal in which thinking “about” has closed with, and become quenched in, its “other”. Blake’s notion of human imagination “expanding” within the imagination of God floods the usually vague ideal of mystics with light. Mystics have the great virtue of making us discontented with bare intellectual achievement. But let us not overlook that “besetting sin” of the *mere* mystic which has been pointed out by Prof. A. E. Taylor. The mystic is apt to revert to “the lower form of immediacy upon which intellectual reflexion has not done its work, instead of pressing on to the higher in which the effect of that work is preserved, though its form is transcended”.¹ He has done little, so far, in the way of solving the time-honoured problems of philosophy. And in his poorer types he evades the pain of thinking only to slide back towards the mentality of the cod. The ordinary mystic in truth has not “expanded” sufficiently within the Cosmic Imagining to be able to discern the deeper truths that we require. But this is not to say that the far-off goal of his quest is not all that enthusiasm declares it to be: a reality of indefinitely rich content, at once cosmic emotion, knowing, and being, to be grasped intuitively in direct feeling beside which even the most complete of our makeshift rational systems would seem absurd.

I turn to consider some criticisms of Dr. Schiller’s, ignoring, perforce, in so doing the many views which I share with that distinguished thinker. And first as to his suggestion that metaphysics is poetry. Now Metaphysics progresses by way of a succession of tentative creative hypotheses, but its final effect surely is to provide some conservative statement of the character of reality *as it is*. Not that to be poetry is to be necessarily untrue; every work of the Cosmic Imagining is itself, whatever its subsidiary features, a poem. A world-episode might be likened to an epic, the creative IDEA to an artist. In this connexion it is to be noted that Dr. Schiller, besides being a pragmatist, is also a poet; *Riddles of the Sphinx* marking brilliant experimental work in monadology. And I take it that his metaphysics, which, of course,

concept (usually a very abstract makeshift) ‘about’ it, etc.” Dr. Bosanquet in his *Hibbert Journal* notice has criticised this as if I meant to refer to a “lower immediacy” of unanalysed feeling. He has overlooked the fact that there is a “higher immediacy” compatible with perfect discrimination of every aspect of the content awarded.

¹ *Elements of Metaphysics*, p. 153.

he will class "ruthlessly" with poetry, is *also* an adventure in the quest of truth.

Dr. Schiller mentions a difficulty touching the concept of an "impersonal" imagination. But I do not suppose Cosmic Imagining to be sub-, but superpersonal. The World-Ground is conceived by me explicitly as conscious; this consciousness being the *con-tinuity* of the contents of a psychical Universe. To be conscious on this level transcends the way in which a single finite sentient, with its intermittent 'self'-content contrasting with a 'not-self,' is conscious. The cosmic consciousness which has all finite sentients and all existent contents present to It, cannot be called 'personal' to any profit. Indeed if we call It 'personal,' we merely describe It as a defective and fragmentary 'person' like one of ourselves and that way lies trouble. The truly important point for metaphysics is that we should allow that the World-Ground is conscious and that It enjoys also purposive affective being.¹ Those religionists, again, who desire to worship a reality more closely resembling themselves are not sent empty away. There remains the God (and Gods) of their special world-system; the Overlord in Whom this system is conscious. What object of devotion could be more utterly vital to them than such a God?

Dr. Schiller avers that I condemn the Ontological Argument but have found it useful, nevertheless, in places. But this is a misapprehension of my procedure. I have nowhere to my knowledge argued from the mere *concept* to the reality, independent of my conceiving it, of a cosmic consciousness. I have argued from the *intuition* of conscious continuity within my actual experience to a universal continuity of the same nature. And this continuity, I contend, treated as an hypothesis seems to be confirmed by the experience that all things "in one another's being mingle," nay by the mere fact that we can be aware of a related plurality at all. This might be cited as an instance of the method of exploiting alleged intuitions so as to discover at leisure whether they are of any worth.

Dr. Schiller himself has experimented with the hypothesis of monads and, in reply to the question as to how monads get related, suggests that, given the primeval monads, there is given also the possibility of their coming into relations. When such relations are established, the monads, under the constraining influence of a God-monad, begin a world-process. Novelties do occur, as many of us admit, so why

¹ Cf. *World as Imagination*, pp. 224-233, on Cosmic Emotion.

should we not allow for such a happening as this? But, in the first place, we have no empirical evidence for the belief that there exist self-sufficient monads, unrelated or related. What are called "monads" can be discussed much more fruitfully as centres of psychical activity whose contents belong not only to them but to the wider territory of the World-Ground. Until there is a case made out for belief in genuinely pluralistic monads, we need not concern ourselves with the manner in which existents of the kind are related. First establish the reality of the monads and we will take thought about the riddle involved in their being related. Note, however, that the "novelty" of their being related would be very different from the novelties which figure in the epic of creation viewed as process in the Cosmic Imagining. Novelties within such imagining, which is at once one and many, may be conceived readily enough, for like events seem to occur momentarily within our own minor lives. But a novelty, which consisted in the conversion of a monads' "multiverse" into a universe, would be a fact happening without adequate conditions. For the primeval monads, since they are unrelated by hypothesis, are not in cognitive relations, are unaware of one another. They have no common "intelligible space," in which to meet; and there is no conscious power beyond themselves which could *imagine* a mode of their meeting. And, even if they could meet, this miracle, which had happened so inexplicably, could also, I presume, cease inexplicably and leave 'not a rack' behind. If, however, you admit the reality of a World-Ground which includes the "monads," you may be driven to consider anon whether this Ground is not the Cosmic Imagining after all with the alleged "monads" as so many centres of experience within it. For imagining is just such a principle as believers in novelty require.

I have dealt here only with a few aspects of the Imaginal Hypothesis, which have evoked comment. The experiment has been dealt with in more detail elsewhere.

III.—ON CERTAIN IDEALISTIC ARGUMENTS.

BY HAROLD P. COOKE.

1. *Matter without mind is unthinkable—matter exists only in mind.* Who, that has studied in the metaphysical schools, has not sooner or later been confronted by these venerable dogmas in the guise of deductions, conclusions, or inferences? I shall not in the first instance with any minuteness inquire what precise meaning can be attached to these statements, but I propose to examine in outline a type of argument, in which they are commonly exhibited as inferences.

The generality of men (if they have an opinion at all in the matter) will be found to hold that what in everyday life are called "things" have an existence apart from the mind or independently of their being perceived. The plant in my study, they will tell you, "is there," when no one is there to perceive it, still green and cold, still odorous, large and drooping. It exists in that sense "in itself" or "apart from the mind". Such, indeed, is the common opinion.

2. Now the argument, with which I am dealing, has combated this position as follows: After an inquiry into the qualities of matter, both secondary and primary, directed to exhibit their dependence on the mind (in a manner I here pass over), the thinkers, of whom I am speaking, infer that "things" exist only in mind. But what is this mind or consciousness, as the phrase is, wherein the world exists? Evidently it can be no other than the mind of the critic himself, for it is that which he is criticising.¹ The world, therefore, exists in my consciousness, whence (as I suppose) it is inferred by analogy to exist equally in your consciousness and so on with other minds in their turn. And so it follows that the world at this moment exists in the consciousness of those who apprehend it here and now. But the men of science tell us that the universe existed, when no sentient being whatsoever, to the best of our knowledge, was to be found anywhere upon this (or, for that matter, any other) planet. If, then, this scientific doctrine

¹ Berkeley, for instance, speaks throughout of himself.

commends itself to us (as to the majority of cultured mankind),¹ the world in what I may perhaps be allowed to call those presentient days, must, we are told, have existed in some or other mind, which was, of course, none other than the Divine. Such, as I understand, is, in substance and outline at least, one type of argument for Idealism and the existence of a Divine Mind. But will it bear examination?

3. The world exists, says the Idealistic doctrine, in my consciousness, and by analogical inference in yours. Now I hardly see my way to accept this as a precise statement. Setting out, be it remembered, from my own experience, I can affirm nothing more than this, that whatsoever part of the one world or universe, as in an unphilosophic mood I should regard it, that is to say, whatsoever things are at any moment perceived and present to my consciousness, are at that moment for my mind and in my consciousness. And so, again, with your mind. In other words, what is at any time presented to any mind is at that time "in that mind" or "consciousness". I will assume that up to this point the argument marches well, as the Frenchmen say. Now, there may be a plant in my room, when I am in my room and perceive it. But suppose that I am "outside that room" and the plant is no longer perceived by any sentient being, though, of course, I may perceive it, if I return. Does it still exist? The answer, as I apprehend, is in the affirmative; or I cannot see a reason for saying that the world was really and in truth existent in that old time, in what I call presentient days. But surely this is a great *crux*, for consider what is thereby asserted. The plant I am speaking of is declared even now undoubtedly and actually to exist, *though at this moment it is not, so far as I know, in any consciousness at all, whether mine or another's*. And thus it seems that *esse* is no longer *percipi*. But, if this is so, I have no reason for asserting that it does now exist in any consciousness, unless I first lay it down that all things whatsoever exist in some consciousness or mind. But this is what I am, of course, endeavouring to prove. Nor does this postulate, indeed, tell us anything of the kind or quality of that consciousness or mind, whether it is Divine or otherwise, nor whether there are many or one only.

4. But, it may be objected, the judgment that all things whatsoever exist for a mind, that is, in some consciousness, was just the outcome of my criticism of my own experience. To this I answer: Not so. My criticism of my experience,

¹ I must not be understood as endorsing this doctrine.

yours of your experience and so on, told us nothing (that I can see) of what was *not* perceived by us, and was, in fact, assumed outside the consciousness of *all* sentient beings. No such universal statement could be based upon criticisms, be they ever so numerous, by various minds of their own "experiences". For in the one case we are dealing with objects within the minds of sentient beings, in the other with objects without them. In the one case we are aware of their qualities, and upon them we rest our contentions; in the other the objects are unknown.

5. Further, it may possibly be said that I acknowledge the existence of the plant when I am out of the room, forasmuch as, though it is no longer perceived, yet is it thought of by me. And undoubtedly I may think of it now, in the sense that I may picture it to the mind. But a living plant does not therefore exist any more than centaurs and chimaeras. There may be some, who, adapting the language of Berkeley, would contend that it has "entered my head and become an idea". But this idea of it, whether mental picture or notion (if notion there be as apart from the word), is of the plant as it is "in the mind," not of a plant that is "without or outside it": nor is it the same even then with the presented reality, albeit our mental pictures or notions (if notions there be) are ever associated with or referred to the presented reality. Again, I am aware that there may have been an interval between my perception of the fire and my recurring to it in thought or imagination; whether existent now or not, was it existent then? If so, we are brought to the quaint position that whatsoever *may* be perceived or thought of by me must exist, as, for instance, old things, that have perished. We conclude, I think, that the addition of the alternative "thought of" to the term "perceived" would go no way to the solution of our problem.

6. Thus it seems to me that Berkeley was in the right, when he replied to that objection against the doctrine he was advancing that it was at issue with "several sound truths of Philosophy" (namely, Natural Philosophy or Science) "and Mathematics," as, for instance, the motion of the earth, which is, he says, "grounded on the clearest and most convincing reasons". He will be told that there can be no such thing in his system. It is never perceived by sense; therefore it is non-existent. He answers that the question whether the earth moves or no amounts to this: if we were placed in a certain position at such and such a distance from both the sun and the earth, we should perceive it to move (*Principles*, § 58). And this—I venture to suggest—is the sole answer

for those who accept, broadly speaking, the Idealist argument I am considering (for it is plainly not to the point to say it is "thought of" in whatever sense); though elsewhere Berkeley is willing that we should suppose things unperceived by us at all or at any given moment to exist in God's mind. And so our fine Idealistic argument has "blown itself away like a fairy tale".

7. Especially should the reader take note that the Idealist doctrine has allowed the existence of some things at some times altogether outside the consciousness or minds of sentient (human or animal) beings. At the moment when I left my room, my plant ceased to be what Berkeley called a "sensible thing" or "thing immediately perceived by sense". It became something that might again be perceived as a plant—in fact, if I may so put it, in accordance with the Idealistic argument, an object for the Divine Mind. And thus the standpoint of my own personal experience was given up, in spite of its being the basis of my criticism. But, I ask, when it is once more in my mind, in my consciousness, is it then also outside my mind? Or, again, is it in my mind and in the Divine Mind? Says Berkeley in the *Consequences of the Principles*, § 90: "Sensible objects may likewise be said to be 'without the mind' in another sense, namely, when they exist in some other mind; thus, when I shut my eyes, the things I saw may still exist, but it must be in another mind". Indeed, this see-saw of existence, now in, now out of my mind, appears somewhat bewildering. For, if there be one plant only or one object that we may at some moment perceive as a plant, then, if it be perceived by two individuals or three or any number at the same time, it is at once in the minds of two or three or whatever number it may be. But, if there be two such objects or as many as there are percipients, what becomes of that single old world of presentient days, for that too is an inference from individual experience? Were there many such worlds?

8. What, then, is very briefly the tenor of the considerations I have been adducing? The world as existing in and for mind is taken as the result of the Idealistic criticism of experience. But whose mind? Surely that of the particular investigator. Therefore, we say the world exists in my mind. But Science tells of a world existing before sentient beings; and this, according to Idealism, must have existed in a mind, which could have been none other than the Divine Mind. Our exposition then proceeds a further step: "the world exists in my mind" can signify only that what is at any time presented to me exists in my mind at that

time. This being so, we go on to ask whether the plant that was in my room, when I was there, still exists in certain circumstances and if it is no longer perceived by any sentient being. The answer of the argument must surely be "Yes," and thence the *crux*, "*Esse* is no longer *percipi*," unless I first assume that all things whatsoever exist in some consciousness; and the objection that this was the outcome of my criticism of my own experience was rightly negatived. And then I go back for a moment and show that, when I left my room, I gave up the standpoint of my personal experience, and I point to the difficulties that thus present themselves, if indeed I can predicate anything of the plant whatever.

9. Our Idealistic argument is now seen to be far from immaculate. It conceals the assumptions, upon which it proceeds. It assumes the universal proposition or law (so to speak) that whatsoever exists exists in some consciousness or mind, which is also the conclusion to which it tends. It does not tell us exactly what we are to understand by these things outside the mind, nor does it fairly face the difficulties thus involved. Once more: it introduces a Divine Mind by a leap in the argument and is in short devoid of philosophic cogency. So much, then, upon this Idealism considered as proceeding to a definite conclusion.

10. In the above criticism I passed over the first stage in the argument concerning the primary and secondary qualities. Let us return to it here for a moment. Now, should you, as an Idealistic philosopher, desire to convince the plain man or the man of science, who has been so happy as to escape a philosophic training, that what is called materialism or the existence of matter in itself or apart from the mind is an unsound doctrine and bring him to admit your contention, you may point (let us say) to yonder plant and question him whether, in his opinion, it is green *per se* or no. If he answer in the negative, well and good: if not, you suggest to him (introducing, perhaps, what are called the phenomena of colour-blindness) that, were there no sentient being endowed with the organs of sight to perceive it, no meaning could be assigned to this proposition that "the plant is green". And, if he should offer instead some scientific "explanation," you will answer that his rays of light or whatever they may be are no more the sensation of green than the sensation of heat is a mode of motion.¹ Thus, when you have run over in like

¹ Again, you will say, is it cold, when there is no one present to touch it? Or sweet, when no one is by to smell it? How often, for instance, it happens that what is cold to one man is not cold to another, or warm to one hand and cold to another!

manner the other secondary qualities (of taste and hearing), I am assuming that he will admit your contention (if he understand it) about their supposed independence, in order to retire into the fortress of the primary qualities, thinking to have you there and maintaining that figure, position, bulk, motion, impenetrability, indivisibility, etc., are anyhow "really in the things themselves". But, you say, motion, extension and the like imply space: a moving extended body must move in space and nowhere else. And what is space as apart from a mind and organs of vision or spatial relations that go unapprehended? If he still believe that "things," as apart from their secondary qualities, are independent of any mind, you will ask him to be so good as to withhold his knowledge of them. You will conclude, therefore, upon the Idealistic theory, that all the qualities of objects are within the circle of the mind.

But what, more precisely, has your contention amounted to? Simply to this, in effect: that you cannot *imagine* in the sphere of matter what is not an experience of the mind or, in other words, you cannot form a mental picture of what is *ex hypothesi* unapprehended. *Nor, though you may talk of it as existing, can you explain what is meant by the term "existence" in that context.*

11. If, on the other hand, starting from a subject and a presented objective (in the language of some modern psychologists) and ignoring "the organs of sense," you regard that objective as immediately presented as an unbroken whole to the mind and argue therefrom that matter without mind is unthinkable, you are nevertheless far from escaping the difficulties, with which we have dealt.

12. And here a brief reference may be made to the classic argument of Bishop Berkeley, who is generally allowed to be the Father of all modern Idealism. It is a common opinion that Berkeley's inquiries into the nature of matter and subsequent erection of an Idealistic system of philosophy are largely based upon the familiar division, first enunciated in its completeness by John Locke, into primary and secondary qualities of objects. What, then, is the Berkeleian philosophy? Take the following sentences (*Rationale of the Principles*, § 10) as a general summary: "For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moving, but I must withal give it some colour or other sensible quality which is acknowledged to exist only in the mind. In short, extension, figure and motion, abstracted from all other qualities, are inconceivable. Where therefore the other sensible qualities are there must

these be also, to wit, in the mind and nowhere else." That is, all qualities of matter, "whatever objects they compose" (§ 3), "cannot exist otherwise than in a mind perceiving them". "Existence in the mind" equals "their being perceived by the understanding" (§§ 3, 4) or "their being perceived or known" (§ 6). "Their being known" does not, I think, introduce any independent term but is a mere synonym for "their being perceived". It is "the being perceived," then, that constitutes "existence in the mind and nowhere else". Now, there is a certain ambiguity in this language; for, one asks, would Berkeley identify "perception" with *aισθησις* in the narrower sense or "sense-perception" or "external perception," as Locke has it;¹ for this we should, in fact, be led to suppose, if his philosophy be essentially (as is the common opinion) a development of the *Essay of Locke*? Let us examine and compare two such passages as the above-quoted passage from § 10 and a second from § 3. In the former the primary qualities appear to be set upon the same footing with secondary; and the secondary were "acknowledged to exist only in the mind"—that is to say, acknowledged in the philosophy of John Locke. "The table I write on," says Berkeley in the latter passage, "I say exists, that is, I see and feel it; and if I were out of my study I should say it existed—meaning thereby that if I was in my study I might perceive it, or that some other spirit does actually perceive it. There was an odour, that is, it was smelt; there was a sound, that is, it was heard; a colour or figure and it was perceived by sight or touch. That is all that I can understand by these and the like expressions." From which passage or certain phrases in it we infer that Berkeley is, in truth, speaking from the standpoint of "external perception". But, indeed, I conceive that Berkeley came short of any well-adapted theory, as I hope presently to show. For he no more enunciates his conclusions than argues up to them. "In truth," he says, "the object and the sensation are the same thing and cannot therefore be abstracted from each other" (§ 5). If we examine a little the lines of thought, upon which Berkeley was working, we shall find him possessed with the impossibility of assigning to "material" objects an existence independently of a mind. In §§ 10 and 11 we have already had occasion to note that there are two distinct standpoints, from which the Idealist argument may be started upon its career. The philosopher may begin with

¹ Cf. e.g., "The immediate object of the mind in external perception is its own ideas".

that view of himself, at once scientific and popular, as a being endowed with many organs of sense and through them attaining to a knowledge of objects. Or, again, he may begin with himself as immediately in contact with objects or his sensible world (in the language of psychologists, "his representational continuum") and deny the intervention of any third element, such as would be the organs of sense. Fundamentally, it appears to me that Berkeley's great argument can be read in all essentials from the latter of these standpoints. But anyone, who should carefully consider his position in the history of philosophy, will acknowledge that his doctrine depends more upon Locke's representative perception, though the latter is so far incidental that Berkeleianism would scarce be affected by its absence.

13. Consider a moment the Lockian theory. Experience has four distinct elements included in it, the mind, the senses, material substances, and ideas. Material substances are outside the mind, but through the organs of sense impress certain copies upon the mind, which, however, are modifications of the real things, for indeed in passing through the organs of sense they acquire colour, taste, smell, and so on—the secondary qualities. Now the Berkeleian revision of Locke has very briefly abolished those external material objects, which had till then been inherited by the philosophic schools from Descartes, who in turn had inherited them from Science. But *historically*, I wish to observe, first of all, that Berkeley has left us the organs of sense. Therefore they, too, must consistently be sensations, whereby we have other sensations! They are, as it were, a channel for those other sensations; and, moreover, they must always be present in the mind (as "subjective affections"), whensoever I apprehend other "objects of perception". Either, then, my bodily organs are permanent sensations in the mind, as being necessary ever to the perception of sensible objects, which is not the case—neither, indeed, are there permanent sensations. Or we must presuppose the body, and thus are brought once more essentially to the Lockian position of (a) the mind, (b) the body immediately known or perceived, and (c) sensations impressed through the body upon the mind, save that these sensations are in Berkeley not representative of objects but identical with those objects themselves. And the cause of their being impressed is apparently the Divine Will. Neither of these alternatives seems a possible one to hold. But I cannot suppose, nevertheless, upon the Berkeleian hypothesis, that my organs of sense are non-existent. For, inasmuch as I may perceive or know my hands (though not, it

may be, the organs of sight), they must be sensations, "for the object and the sensation are one," or *esse*; it seems, is no longer *percipi*.

14. We have now considered in certain of its aspects a famous type of Idealistic argument. Whether we start with that conception of man as a being endowed with certain organs of sense or regard him as immediately in contact with his sensible surroundings (in the ordinary language), alike we fail to arrive at the conclusion that matter without mind is unthinkable or exists only in or for mind. In the second place, assuming that man is a being with organs of sense, we are at the outset of our argument entangled in additional difficulties.

I have taken the Idealistic argument with all its assumptions upon its own grounds. But I must not be understood as inferring that it cannot be substantially stated in such manner as to win our acceptance. Not as an *inference*, however, but simply and merely as a definition of terms! Whosoever would attain to a knowledge of what are called "matter" and "mind" must, first of all, ask himself what he means and intends by "existence" and "experience".

IV.—THE IMPLICATIONS OF RECOGNITION.

BY BEATRICE EDGELL.

THE intrusion of psychological criticism in what may look like an epistemological problem may seem to require justification or apology. Some degree of the former is to be found in precedent.

Prof. Baillie in his article "On the Nature of Memory-Knowledge"¹ was dealing with a problem which was avowedly logical, yet his solution was saturated with psychological truths.

Prof. Laird in his article "Recollection, Association and Memory"² was professedly striving to bring the assumptions of New Realism into line with psychological facts. "The aim . . . is not . . . to show that the facts of memory can be tortured into consistency with these assumptions, but contrariwise that the facts require them." With the success or failure of this enterprise I am not here concerned but merely with the enterprise itself. Both articles bring out the importance of psychological truth for epistemology.

The problems of psychology and the problems of epistemology are different, but the best interests of philosophy are not served by the entrenchment of the province of each behind a strip of no man's land. Not only may the debatable ground afford common problems, but the assumptions of the one may stretch so far as to undermine the constructions of the other, and for this reason, if for no better, require exploration.

This was the belief which made me question Prof. Alexander's account of the psychology of memory³ and the same belief must serve as my apology now.

Some of the difficulties brought out by Mr. Moore in his contribution to the symposium, "Are the Materials of Sense Affections of the Mind?"⁴ have led me to desire to re-examine the implications of recognition with special reference to know-

¹ MIND, July, 1917.

² Ibid., October, 1917.

³ Proceedings of the Aristotelian Society, 1911-12.

⁴ Ibid., 1916-17.

ledge by acquaintance, the kind of knowledge of which sense-knowledge is said to be typical.

In an earlier symposium, "The Implications of Recognition,"¹ I had tried to set forth the difficulties I found in understanding how anyone who held Mr. Russell's views as to (a) the nature of knowledge by acquaintance, (b) the nature of sense-data, could account for recognition. Recognition seemed to me to imply facts which were irreconcilable with both these views.

Mr. Moore in that earlier symposium did me the honour of giving what he termed a correct answer to the question : "What kind of event are we asserting to be happening when we say, with regard to a present sense-datum, 'I know that I have sensed something like this before?' . . . The *correct* answer to our question I take to be this. This kind of recognition consists in our knowing, with regard to the present sense-datum, and with regard to the *relation* 'likeness,' just this : That there was a sense-datum, of which it is true, both that it was sensed by me before, and that it had the relation of likeness to *this* sense-datum. . . . But . . . it does *not* involve that, at the moment when it occurs, we should be *acquainted* with any past sense-datum whatever, which was, in fact, like our present sense-datum. We must have been formerly acquainted with at least one sense-datum which was like our present sense-datum; we *may* have been acquainted with several that were so. But, at the moment when our act of knowledge occurs, we need not be acquainted with any such sense-datum ; and (I should say) *never* are so. . . . We need not even know any such sense-datum by description, in Mr. Russell's sense. All that is involved is that we *are* knowing with regard to the property 'sensed by me before *and* like *this* sense-datum' that there was at least one sense-datum which possessed it."²

Mr. Moore asked why I thought Mr. Russell precluded from giving this answer.

I wish now to examine the implications of recognition as outlined in Mr. Moore's "correct" answer and to consider Mr. Russell's account of acquaintance in relation to them. I wish further to question the independence which Mr. Moore alleged between Mr. Russell's view of acquaintance and his view of the nature of sense-data.

Recognition is, of course, cognition, and it is, for Mr. Moore, "knowledge about". We know about the present sense-datum, about the relation of likeness. Retentiveness is implied. "We are knowing with regard to the property

¹ *Proceedings of the Aristotelian Society*, 1915-16.

² *Ibid.*, p. 213.

sensed by me before and like this sense-datum that there was at least one sense-datum which possessed it." On the very coarsest analysis all this implies much over and above retentiveness. It at least implies a distinction between the *quale* of some past sense-datum and its "thisness," otherwise we should not now be knowing this property "sensed by me before and like this sense-datum" when we are not knowing that sense-datum by acquaintance. There would seem further to be differentiation and assimilation of that *quale* with respect to the *quale* of the present sense-datum. It is apparently both differentiated from, and assimilated to the present *quale*.

Now does Mr. Russell's account of acquaintance with a sense-datum furnish a possible basis for recognition as described above?

Some may be tempted to ask, "Why should it?" Mr. Russell is not concerned with psychology. It is not his business to trace the development of cognition. This, I think, was the thought which underlay Mr. Bartlett's contention in the course of the earlier symposium: "Questions of history are often confused with questions of analysis. . . . And it is no valid criticism of the analysis to say it leaves us without an account of how the factors that it indicates have come to be what they are."¹ Perhaps not, but it is in place to ask whether the analysis given is adequate. Knowledge as described by the theory of knowledge must at least be psychologically possible. To me Mr. Russell's analysis of acquaintance seems wrong because from such cognition, once admitted into the scheme of cognitional development, advance becomes impossible.

But to turn to Mr. Russell's view of acquaintance! It is not very easy to obtain from his writings a self-consistent account, possibly because he explains it in different contexts. In the first place knowledge by acquaintance is sharply distinguished from knowledge about. "Acquaintance, which is what we derive from sense, does not, theoretically at least, imply even the smallest 'knowledge about,' it does not imply knowledge of any proposition concerning the object with which we are acquainted. It is a mistake to speak as if acquaintance had degrees: there is merely acquaintance and non-acquaintance."² Sense-data . . . are among the things with which we are acquainted; in fact they supply the most obvious and striking example of knowledge by acquaintance."³

¹ *Proceedings of the Aristotelian Society*, 1915-16, p. 189.

² *Our Knowledge of the External World*, pp. 144, 145.

³ *The Problems of Philosophy*, p. 75.

The fullest account of acquaintance is given in three articles, "On the Nature of Acquaintance". Mr. Russell is there making his case against neutral monism. "There is . . . at any given moment a certain assemblage of objects to which I could, if I chose, give proper names; these are the objects of my 'awareness,' the objects 'before my mind,' or the objects that are within my present experience."¹ Mr. Russell seeks to disclose by analysis the bond which unites this collection and distinguishes it from what is not experienced, though open to knowledge about. "The difference between being and not being one of the contents of my momentary experience, according to James, consists in experienced relations, chiefly causal, to other contents of my experience. It is here that I feel an insuperable difficulty. I cannot think that the difference between my seeing the patch of red, and the patch of red being there unseen, consists in the presence or absence of relations between the patch of red and other objects of the same kind. It seems to me possible to imagine a mind existing only for a fraction of a second, seeing the red, and ceasing to exist before it had any other experience."²

"Neutral monists have done a service to philosophy in pointing out that the same object may be experienced by two minds. . . . Thus when an object O is experienced by two different persons A and B, the experiencing of O by A is one fact, and the experiencing of O by B is another. The experiencing of O by A may be experienced by A, and the experiencing of O by B may be experienced by B, but neither can experience the other's experiencing. A can experience his experiencing of O without logically requiring any other experience; hence the fact that he experiences O cannot consist in a relation to other objects of experience, as neutral monism supposes. From these characteristics of experience, it seems an unavoidable inference that A's experiencing of O is different from O, and is in fact a complex of which A himself, or some simpler entity bound up with A, is a constituent as well as O. Hence experiencing must be a relation, in which one term is the object experienced, while the other term is that which experiences. . . . Now since we have decided that experience is constituted by a relation, it will be better to employ a less neutral word; we shall employ synonymously the two words "acquaintance" and "awareness."³

Acquaintance is thus a relation of which one term is that

¹ *Monist*, 1914, p. 5.

² *Ibid.*, p. 172.

³ *Ibid.*, pp. 437-438.

which experiences, but this does not involve any direct knowledge of that term. The datum when A experiences his experiencing of O, is, "something is acquainted with O". "The subject appears here, not in its individual capacity, but as an apparent variable." It is the referent for all the relations wherein "this" is object. But Mr. Russell holds that acquaintance with O does not necessarily involve acquaintance with this acquaintance. We are thus saved from a limitless involution.

The following passage from the same article raises for me some doubt as to the distinction between knowledge by acquaintance and knowledge about. "When two objects O and O' are given as parts of one experience, we perceive the fact 'something is acquainted with both O and O''. Thus two instances of acquaintance can be given as having a common subject, even when the subject is not given. It is in this way, I think, that 'I' comes to be popularly intelligible."¹ Does acquaintance in the instance supposed involve knowledge of O and O' as different objects? If so, why does not such knowledge constitute knowledge about O and O'? If it does not involve this much, why must there be introspection be two instances of acquaintance having a common subject? Why should there not be two instances of acquaintance having a different subject or a single instance of acquaintance with an undifferentiated object OO'?

A similar question as to the simplicity of the object in acquaintance is raised when we read that the relation arising in attention is different from that of mere acquaintance, and that "one point in which it differs is that a subject can only attend to one object, or at least a very small number, at a time".² Are we then to suppose that we can be acquainted with a multiplicity of objects *as a multiplicity*? This is a question which is suggested also by a criticism of Mr. Moore's, and I will refer to it again in that connexion.

From his account of acquaintance we may pass to Mr. Russell's account of the nature of sense-data. The account which I used in my symposium paper was that given in his article on "The Ultimate Constituents of Matter".

"When I see a flash of lightning, my seeing of it is mental, but what I see, although it is not quite the same as what anyone else sees at the same moment, and although it seems very unlike what the physicist would describe as a flash of lightning, is not mental. . . . What I mean could perhaps be made plainer by saying that if my body could remain in

¹ *Monist*, 1914, p. 442.

² *Ibid.*, p. 445.

exactly the same state in which it is, although my mind had ceased to exist, precisely that object which I now see when I see the flash would exist although, of course, I should not see it, since my seeing is mental."¹

On the basis of this description of sense-datum, I then raised the following problem of cognition: "Suppose the constituent 'what I see' of all that occurred in the physical world to recur"—a possibility which Mr. Russell would seem to allow—"... how could we interpret awareness of 'again,' 'had before,' on the supposed recurrence?" "There is a temptation to modify the sense-datum in virtue of the body concerned in the seeing, on the ground that the body is modified by the previous occurrence. But we have no more reason to assume that those events which constitute the body, at least so far as concerned in the incident, are different, than we have to assume that the physical event which we call the flash of lightning is different. We may suppose that they recur, and so leave theories as to brain tracts on one side."² What can the magic of repetition effect? One might perhaps be justified on indirect evidence in claiming that sometimes when there is repetition the recurrence of an event is for the individual as a first occurrence, there is no recognition. One may claim this, I think, without infringing on the doctrine of retention. But if we are to link up acquaintance with a sense-datum with Mr. Moore's "correct answer," we must look for the most that repetition can effect, not the least.

Can we solely on the ground of retentiveness say that the sense-datum becomes "familiar" with repetition? It seems to me that this latter is just what we cannot say. The utmost that we can infer from retentiveness is that with repetition the acquaintance with O may be facilitated. It may conceivably take place more quickly, more vigorously, but it will be acquaintance with O, and nothing more.

Mr. Russell in argument often has recourse to diagram, and possibly for this reason his account of acquaintance always calls up for me the image of two irregularly-shaped masses, labelled respectively "matter" and "mind," bumping into one another "in the intimate way of acquaintance". I see them repeat the process, but I can infer nothing from the ensuing bruises except increased intensity in the shock of the collision. Mind never "recognises" matter.

I tried in the earlier symposium to bring out my difficulty

¹ *Monist.*, 1915, p. 404.

² *Proceedings of Aristotelian Society*, 1915-16, p. 182.

with regard to retentiveness and repetition by saying: "My seeing is different on the second occasion; this is where we must look for the influence of past experience. But no sooner have we said this than the artificiality of separation between act and sensum, by which the one is mental and the other physical, becomes apparent. If 'again,' 'had before' is the property of the act, how does it penetrate through to the sensum, for so penetrate it must if it is to become known?" Mr. Bartlett took me to task for this. "There is no reason whatever why we should maintain . . . that the property of 'again' must penetrate through to the sensum."¹ In a preceding paragraph Mr. Bartlett wrote: "We say, 'when a series of actions has been repeated once or twice its performance is facilitated'. May be the inner side of facilitation is what we call feeling of familiarity, and this is somewhere at the basis of the process that becomes definitely remembering and sometimes recognising."²

I agree, but is not this just the point? Facilitation must have an inner side, and will not this inner side penetrate to the sensum, or fall within the "totum objectivum," to use Dr. Ward's phrase. If it does not, I fail to see how it will serve for remembering or for recognising. One might, of course, claim that it was introspection which was acquainted with the facilitation of experience, but this will either lead epistemologically to involution in the act of acquaintance, for which there is no limit, and which Mr. Russell himself has not entertained, or would postulate a completed analysis of the "totum objectivum" which would nullify the whole epistemological function assigned to acquaintance. The adoption of Prof. Royce's theory of a third fundamental cognitive process, interpretation, might save such a situation. When I recognise O as "familiar" or "had before" there would be neither mere acquaintance with the present object nor knowledge about this object, but the interpretation to my present self of O as a sign expressive of my past self. But this is a digression.

We said Mr. Moore's account of recognition involved knowledge of the likeness between the present sense-datum and the *quale* of the past sense-datum, though there need not be acquaintance with this past sense-datum. It need not apparently be in memory as an object of acquaintance. Forty-eight hours ago, say, I was acquainted with O. Now on the recurrence of certain events, I know O and I know the likeness of this O to something or other which is past.

¹ *Proceedings of the Aristotelian Society*, 1915-16, p. 192.

² *Ibid.*, p. 191.

Accepting Mr. Moore's account of what happens through repetition: a change from acquaintance with a sense-datum into knowledge of a truth about a sense-datum, or perhaps on Mr. Russell's theory, into acquaintance with likeness,—can psychology entertain the change as a scientific problem, or must it be a piece of mysticism or possibly a metaphor with a meaning only in epistemology?

Mr. Moore certainly writes as though retentiveness would enable us to be aware of the likeness between a present "this" and the *quale* of a past this, although the particularity or the "thisness" of that past object of acquaintance is not revived. I think he is right as to the fact of such a development, but I fail to see how he could be so, if our original awareness were mere acquaintance as described. Could the distinction of *quale* and "thisness" have arisen at all when unanalysed "thisness" was the essence of acquaintance? Does retention analyse what as given was unanalysed? I find the same difficulty here as that which confronts me when I try to conceive the accomplishment of the programme outlined as follows by Mr. Russell: "When we first see a white patch we are acquainted in the first instance with the particular white patch; but by seeing many white patches, we easily learn to abstract the whiteness which they all have in common, and in learning to do this we are learning to be acquainted with whiteness."¹

My trouble is to see how we could ever learn anything, however retentive we might be, from a repetition of acquaintance with sense-data as described by Mr. Russell. What latent possibilities does it offer for comparison or abstraction? Consider in this connexion the following passage:

"It tends to be supposed that colours being immediate data, must appear different if they *are* different. But this does not follow. It is unconsciously assumed that, if A and B are immediate data, and A differs from B, then the fact that they differ must also be an immediate datum. It is difficult to say how this assumption arose, but I think it is connected with the confusion between 'acquaintance' and 'knowledge about'."² If this is so it should not be supposed that colours appear alike when they *are* alike; and it surely "does not follow" that on the repetition of the white patch we should necessarily be acquainted with the second as like the first, or that we should easily learn to abstract the common quality. As I understand Mr. Russell's acquaintance there

¹ *Problems of Philosophy*, p. 159.

² *Our Knowledge of the External World*, p. 144.

would be momentary flashes of something—I hesitate to call it cognition—but each flash would be discrete, insulated. How awareness of likeness and difference could arise therefrom is to me a mystery. The object presented is simple or unrelated.

Mr. Moore regarded me as committing two errors, in maintaining that the object in acquaintance is simple and that there is nothing to abstract. In the first place he asserts, "this is a mere mistake. According to Mr. Russell, if there were an acquaintance with the fact '*a* is like *b*', such an acquaintance *must* be complex, containing as constituents, at least, *a*, *b*, and the relation 'likeness' among others."¹ I do not know what is intended by a complex acquaintance. There may be acquaintance with a complex, but surely the complex is not known as a complex? If so, what is the distinction between "acquaintance" and "knowledge about"? If I know the tone which I hear is a complex of sounds, but do not separately acquaint myself with this and that overtone, is not such knowledge, knowledge about the tone in question?

Mr. Moore goes on to say, "It seems to me an important error to maintain that if a thing is simple, there can be nothing to abstract".² I am concerned with the simplicity of the object as known in acquaintance, not with the simplicity of an object regarded as a thing in the world of sense objects. It does seem to follow, if I postulate that a sense-datum is for me simple, e.g. orange, that I cannot abstract from it red and yellow. Bare acquaintance with orange gives no scope for differentiating or assimilating the orange from, or to, red and yellow.

But we do here, I think, reach the root difficulty of Mr. Russell's view of acquaintance: the impossibility of making headway with an object of cognition which is without necessary relations to previous experience. For this reason I should hold there never is a simple cognitive acquaintance with an object, but always knowledge about; that every object is *ipso facto* set in relations. The "this" of sense experience is at least in respect of its *quale* differentiated from, or assimilated to, the sense-data of past experience. Mr. Russell said it was possible to conceive of knowledge by acquaintance for a momentary mind. Nothing could, I think, show more clearly how inadequate his view is as an analysis of any act of knowledge. The object known by the experient

¹ *Proceedings of the Aristotelian Society*, 1915-16, p. 219.

² *Ibid.*, p. 219.

is never divorced from past experience. Cognition cannot begin "ex abrupto".

In the earlier symposium I tried to express this influence of past experience on cognition in two statements to which Mr. Moore took exception. I said : "It is my previous experience with '*b*' which changes a hypothetical simple '*a*' into '*a* like *b*'". "It is the '*a*' itself which is different from the sensum it might have been had there been no experience of '*b*'. "

Mr. Moore thinks I have confused the nontautologous (and according to him false) proposition, "that every sense-datum which is recognised must be qualitatively different from anyone which is not," with the tautologous proposition "that every sense-datum which is recognised has some *property* which does not belong to any that is not".¹ I also spoke of sense-data as modified by past experience, and this expression he characterised as "astonishing". Ambiguity seems almost inevitable since I was trying to put my own view into language which belongs to Mr. Russell's theories.

With regard to the first statement, I should, of course, really hold that previous acquaintance, in Mr. Russell's sense of the term, could change nothing. If I had a momentary mind I could with a flash of acquaintance have "apprehended" (or whatever term one could use with the mildest cognitional flavour) "*a*," but since I have a history I apprehended, not "*a*," but "*a* like *b*". It can be written "*a-like-b*," if this makes the nature of the object clearer. If by a sensum were meant the physical quality of a thing, then I could understand how my second statement merits the epithet "astonishing". But, from my point of view, we never know any quality by sensation; we know a sense given something in relation to past experience. And still less can I assent to the doctrine of acquaintance as a form of cognition in order to understand how the sense-datum might be a physical quality or how it might be something outside the bourne of mental life. I cannot, for example, conceive of the past history of a man spliced on to the present moment of acquaintance in his dog and then say that in the presence of the stone-throwing postman the dog is aware of a definite scent; or reverse the state of affairs and supply the master with his dog's past history, and claim that the master would at that moment be aware of the brownness of his boots, although as a dog we are told he never apprehended colour. It may be that this could happen, but it is

¹ *Proceedings of the Aristotelian Society*, 1915-16, p. 217.

difficult to reconcile such apprehension with the slow progress made by human beings in learning their sense world, conditioned as this learning seems to be by every previous step. To me it seems more probable that there would be no such scent for the master-become-dog and no such colour for the dog-become-master. The sense-datum itself would in each case be different from what it might have been, had each knower retained his own past history.

Mr. Russell approved of M. Bergson's use of the analogy of the cinematograph for the mathematician's conception of the world: "The cinema is a better metaphysician than common sense, physics or philosophy. The real man . . . however the police may swear to his identity, is really a series of momentary men, each different one from the other, and bound together, not by numerical identity, but by continuity and certain intrinsic causal laws."¹

The analogy of the cinematograph film may be suitable for acquaintance, but as Dr. Wildon Carr pointed out in his contribution to the symposium, the pictures on the film will never of themselves make a continuous interrelated whole, however fast the roll may turn. For that there must be a spectator. Just so some one's life history in intimate union with reality, not merely confronting it as a detached spectator, is essential for that differentiation and assimilation which is present even in the simplest cognition.

In spite of his astonishment at my language Mr. Moore himself seemed willing to admit the modification of sense-data by past experience. "There are, I think, some grounds for suspecting that what Mr. Russell asserts in this quotation" (*viz.*, the one given p. 178, referring to the flash of lightning) "really is inconsistent with the view that our sense-data *are* modified by past experience, and is, therefore, false."² But Mr. Moore insists that even if this leads us to reject Mr. Russell's view as to the nature of sense-data, such rejection has no necessary bearing on our belief in his view as to the nature of knowledge by acquaintance. "These arguments . . . are . . . an attack, *not* on Mr. Russell's theory of knowledge at all, but *only* on his theory of the physical world."³ He says that I have "clearly not realised how independent the two theories are". I plead "guilty". My criticism had taken its departure from the passage quoted, p. 178. But are they independent?

In his paper for the symposium of June last, Mr. Moore

¹ *Monist*, 1915, pp. 402, 403.

² *Proceedings of Aristotelian Society*, 1915-16, p. 222.

³ *Ibid.*, p. 223.

translated the question, "Are the materials of sense affections of the mind?" into the question, have sensations presented to me "any relation which is of such a nature that the assertion that at any given time they have ceased to have to me that relation implies that at the time in question they have ceased to exist?"

He considers that to assert of sensations that they are "lived through" is to assert of them that they have such a relation. He finds himself unable to give the affirmative answer to his question on the following grounds: (a) "I am unable to discover that they all have to me any relation at all except that which is constituted by their being presented to me". (b) "I seem to myself to see pretty clearly that this relation is *not* a relation which has the peculiar property in question."¹ Whether or not Mr. Moore can discuss his problem without involving any doctrine of cognition will depend upon the meaning which he gives to "presentation". He says he trusts to luck that his readers will know what "presented sensations" stand for. Presentation is a word with more than one meaning in current psychology. So far as I understand Mr. Moore's use of it with reference to sensations, it is a name for the same relation which Mr. Russell termed acquaintance with reference to sense-data. If so, his inability to give an affirmative answer to his question will extend as far as his belief in this relation as an adequate analysis of what is involved in awareness of a sense-datum—as far as he follows Mr. Russell.

Once admit that such an analysis is not adequate, but that awareness involves "knowledge about," the differentiation of the present "this" from a past "this," and the assimilation and differentiation of the *quale* of the present this with and from, the *quale* of past experience, then the problem as to the "materials of sense" must include the problem of these relations.

Can we deal with them without involving not only presentation but the life-history of an individual? If we try to separate the presented "this" from the mental pulse of the moment, and say that in its "thisness" it is not necessarily lived through, but only "presented," then we have to explain how the "this" in respect of its *quale* is different from or like to, anything in past experience. At once it will be urged that it is not like to, or different from, *experiencing*, but like to, or different from, past experienced sense-data. True, but there is a difficulty in the word sense-data. We often intend

¹ *Proceedings of the Aristotelian Society*, 1916-17, p. 426.

to mean by it sense-data which are what they are whether they be presented to a subject or not, much less whether they be presented to a specific individual; but in fact we are bound here to mean by it the sense-data which have been presented to the subject of the present cognition, and my contention is that these are what they are because they in their earlier turn were differentiated and assimilated. A present "this" in respect of its *quale* must be differentiated from, and assimilated to, sense-data which are past and which were cognised by X. Is this possible unless the present "this" and the past sense-data enter as integral parts into the same history; *viz.* X's mental life? Must they not in respect of their "thisness," when there is cognition, be "lived through" by X?

To suppose otherwise is to conceive of them as pearls strung on a thread, each pearl it is true coloured by its proximity to the pearls which have already been threaded, but making up a string with them only by reason of that connecting thread. It is of the thread alone we predicate that it goes through now this, now that. So it may be argued it is the knower alone who has a history, his processes of knowing are lived through, but not so that which is given in presentation.

Yet if this be truly so, how can we explain the development of these processes of cognition? Why should differentiation grow finer, assimilation increase in range, if there be no reciprocity between these processes of cognition and the "this" upon which they are exercised, and yet how can there be, if that which is differentiated and assimilated lies outside the stream of mental life.

The unfolding wealth of life, the ever-growing significance of sense-data for guiding and controlling behaviour must, in such a case, be traced back to the potentialities of self-developing activities exercised upon something alien to themselves. Always the sense-datum would be there, "totus, teres, atque rotundus," to use the phrase Dr. Ward applied to the logical concept,—it would be only the imperfect development of the power of sensing that rendered sense-data confused, indistinguishable from one another or mutually inhibitive. Why the imperfect should become more perfect, must then be explained in terms of its own latent capacities. But why the order of that becoming should be determined step by step by the nature of the presented something which stands outside its life, it would be hard to understand. Could we, indeed, understand how mere exercise of sensing, even though each performance were

retained, could ever endow a sense-datum with a new significance, and why a number of serial acquaintances, all of the same content and order, are not "crowded together like shades on the banks of the Styx".

The more strenuously the sense-datum is thrust outside the stream of mental life, as "presented" but not "lived through," the more the psychologist is driven back on the conception of self-explanatory mental activities; yet in proportion as they are evoked as self-explanatory, so do these very activities become colourless and indescribable. How does one process of sensing differ from another? In duration, in vigour, perhaps. How is sensing differentiated from remembering or this again from imagining? Prof. Alexander was well advised in trying to spell out such a mental history in terms of one activity, conation. But even he was driven to introducing variety into the monotonous life of conation by covertly reintroducing that which had been exorcised; *viz.*, the presented sense-datum and, in its turn the presented image.¹ The belief in sense-data as "presented" but not "lived through," is to me analogous to a belief in food as that through which the cells of the body grow and develop, but as never itself entering into the life-history of these cells.

Whether "lived through" is such a relation "that to say of anything that at one time it was lived through by me, and that at another it was not, implies that at the second time the thing in question did not exist at all," is altogether another question, and one which requires an analysis of what we mean by existence in this connexion. It is a question towards the answer of which Mr. Moore's discussion of presentation and existence may be a valuable preliminary. It is a question which Mr. Russell's theory of acquaintance with sense-data either ignores or treats as already answered; and it is just this omission or assumption, which renders it impossible to regard Mr. Russell's theory of knowledge by acquaintance as independent of his theory of the physical world.

¹ "A Conational Psychology," *British Journal of Psychology*, vol. iv., pp. 251-252; cf. *Proceedings of the Aristotelian Society*, 1911-12, p. 202.

V.—THE IDEA OF THE STATE.

BY C. DELISLE BURNS.

THE philosophical interpretation of the state depends chiefly upon an analysis which penetrates under the forms of administration. It will find in those forms the embodiments or expressions of ideas and feelings ; and it will, therefore, be, in part, a psychology and, in part, a moral evaluation of the comparative worth or importance of popular conceptions and passions. But the analysis should be carried further. We must penetrate beneath the psychological facts and the moral quality of this or that generation in order to discover, if possible, the governing tendency of which the ideas of administrators and the vaguer conceptions of the populace are the surface currents. For there is a tendency, like a tide underlying the ripples and eddies of the hour, which carries us through centuries and is, more truly than any political habit, the "idea" of the state.¹ This tendency is to be analysed and estimated. It is not to be conceived as a conscious plan : nor is it a blind and unhuman *elan*. It is not a permanent and continuous movement, but should be compared rather to a succession of momentary illuminations or periodic impulses, setting in a certain common direction. It is a rational tendency in that it is made up of flashes of intelligent insight into what is possible or desirable ; but it is not rational, if by rational is meant argumentative or syllogistic.

The analysis of this "idea" of the state shows, among other important facts, that the state exists for bringing men together, for unifying or co-ordinating their action for common purposes. The particular common purposes for which the state exists, usually called political, are order and liberty, the fundamental conditions for the successful pursuit of all other social purposes. But clearly an organisation which exists for one purpose may be used for the attainment of other

¹It will be seen that we mean by the "idea" of the state not the Aristotelian universal but the Platonic idea, corrected so as to include a reference to change. Perhaps this may be the Aristotelian *rò tì ην εἶναι*.

purposes as well. Thus a Trade Union, existing for the betterment of the industrial position of its own members, may be used also as an instrument for the general intellectual improvement of the whole wage-earning class. And so we find the state used sometimes as the foundation of a Church, or to provide an administrative system in education. The fundamental purpose remains, order and liberty, to distinguish the idea of the state: and with this purpose go various necessary means, which therefore enter into the idea of the state,—administration, legislation, and other such devices of organisation.

We shall not, however, analyse all the elements of the idea of the state, but shall confine our attention to one element in the idea which has been insufficiently analysed in political philosophy. It is that part of state life and state action which is concerned with the relation between states. This does not appear so far to have sufficiently affected the philosophical interpretation of the state; and the problems of allegiance and of responsibility in this regard have been only very crudely treated by philosophers. We take this, then, as our main thesis: *the idea of the state implies that the state exists for increasing the intercourse and interdependence between its own citizens and those of every other state.*

As a preliminary we must note that the important fact is not that there are in existence many states, but that there is a connexion between these states of a definite and analysable kind. We do not wish to call attention to the fact, for example, that the "idea" of a heart or a brain must be derived from the study of many hearts or brains, but to the fact that the idea of the heart must be derived from a study of the relation of a heart to a lung or a limb. It is true that the nature of the state has been studied too much by each philosopher as though the particular state which he inhabited were the only or the most typical state. But the other point is more important for us here, namely, that the connexion between states has been dismissed too summarily in discussions as to the nature of the state.¹ Again, many men seem to be able to study or think out the structure or activities of this or that foreign state: but a knowledge of a foreign state which

¹ Thus the argument does not refer to the "class-concept" state and its source. No one denies that Hegel, for example, knew that "state" was a class-name applicable to many specimens. The argument so far as the "authorities" go was briefly summarised in my paper in the *Aristotelian Society's Proceedings* for 1915-16, p. 290. But in that paper the evidence from state life, which must be the basis for any theory as to the "idea" of the state, was only briefly reviewed.

is an "inside" knowledge, in the sense in which the popular knowledge of our own state is, will not avail for our purpose here. A knowledge of each state separately is not a knowledge of the *relations between states*; and these latter are the evidence to which we refer in saying that the nature of the state is affected by its foreign relations.

It is generally agreed that, so far as its own citizens or subjects are concerned, the state exists to bring them together: but the present view was not always and everywhere held to be true. Machiavelli and others believed that the Prince or King in France, representing the state, did well in setting the people against the nobles. And it is implied in the idea of the balance of powers in Polybius and perhaps in Montesquieu that the state is an equilibrium of *contending* forces. Only by the wildest metaphor can this be called a bringing together or unification of citizens and subjects. The principle "*divide et impera*" has been adopted by political philosophers as valid and has been practised, as effective, by politicians and rulers. But against this we set the contrary opinion that the state exists for bringing men together; and we find that most political philosophers are of this opinion. The majority, however, think of "men" as citizens of the particular state they choose to discuss. For neither political theorists nor politicians have yet accepted the idea that the state exists for bringing together men of *different* states. We shall omit, therefore, the problem of the relation of the state to the groups of its own citizens and subjects, and concentrate our attention upon what are called the foreign relations of the state. We shall maintain that the idea of the state implies that the state exists for bringing together, unifying the interests and the action of, the citizens and subjects of *different* states.

We may summarily assert that this is the opinion or the implied conception of Plato in the *Laws*, of Petrus de Bosco, of William of Ockham, of Grotius, Locke, Kant and T. H. Green. The opposite conception, that the state marks the distinction and emphasises the difference between citizens and aliens, is the implied opinion in Aristotle, Thomas Aquinas, Machiavelli, Hobbes, Hegel and Bluntschli. It does not appear to be possible to commit to either opinion such writers as Seneca, Augustine, Dante, Bodin, Vattel, and Lotze. Those philosophers who are not greatly concerned with social theory need not be classified: minor writers, sometimes vigorous influences, such as Paine, may be cited by both sides; and we may omit entirely the opinions of sentimentalists such as Ruskin or Rudolf Eucken. It should

be understood, however, that the above names are given merely to indicate roughly the distinction of opinion of which we are thinking. It does not in the least affect the problem that "authorities" can be found on either side: and obviously it is utterly unimportant for our present purpose if any of the writers we have named has been wrongly classified. We omit the problem of commentary and interpretation: quite possibly Hegel understood the external relations of the state, although to our mind his language may seem to show him entirely ignorant of certain important facts. We must, however, now return to the problem itself. How far does the idea of the state imply the promotion by the state of the interests which are *common* to its own citizens and to aliens?

Analysing the general tendency in the history of the state we find that the evidence *against* our thesis may be summarised under two heads: (1) militarism and (2) the concentration upon domestic development in every state. As for the first, it is held that the state is essentially an offensive-defensive organisation against non-citizens, because the greatest expenditure in most states is given to armaments, the whole history of external policy is a record of wars and preparation for wars, and nearly every state compels most of the male population to practise killing. Further, militarism is not merely a preparation for war: it is a social situation in which the majority learn obedience without responsibility for their own acts and the few acquire authority by bearing the burden of decision as to what others shall do. This is held to produce order and organisation: for "to organise" means, in popular parlance, to make each man do what some other man thinks he ought to do. But since the state exists for order, militarism is in the idea of the state and so is the justification of militarism, the division and conflict between states. The conception here summarised can be more persuasively expressed in the terms of rhetoric or of that kindly "philosophy of the spirit" in the mists of which all clear outline is lost. It is to be read in Hegel and Treitschke; and, in disagreeably clearer terms, in Hobbes. From this it follows that the idea of the state implies that the state keeps off or excludes aliens from contact with its own citizens: or that, if contact occurs, it is a danger and an unfortunate political accident.

Secondly, it is held that because every state has been more carefully developed internally the external relations of the state cannot be of any importance to the idea of the state. Very little time or thought has been given to changing or modifying the relations between states: and in fact these relations are now not very different from what they were in

ancient Assyria, in Greece or in the Middle Ages. The state seems, therefore, to be like an organism within a hard and exclusive shell, within which alone its development shows its nature. The ideal would be a self-sufficing, isolated state; although, because the earth is so overcrowded, no state may embody that ideal. It may be argued also that the fact that states have grown in size and in internal complexity and yet have not abolished war and the preparation for war shows that the real tendency is towards no external change but a more inclusive and self-sufficing whole. This is the philosophical conception, if any, which underlies Naumann's *Mittel-Europa* and the policy of large "blocks" such as were indicated in the Paris Conference.¹

We reply as follows: War and militarism are not in the "idea" of the state, because (a) war and militarism are survivals from the period before there was a state. The organisation of nomadic tribes is modified or even controlled by militarism. The head-hunters of Borneo understand and maintain militarism, but not political administration. The patriarchal family is often militarist. But what can be found so frequently where no state exists cannot be in the "idea" of the state. All the virtues and excellences which Hegel finds in the military class or "spirit" in the state can be found in groups which are innocent of state-life.

Again, militarism is not in the idea of the state because (b) the general tendency of state-development has been towards an always widening distribution of responsibility among the members of the state. This is sometimes called democratisation: but in any case it is clear that more and more citizens tend to take over or to accept the moral responsibility for the actions of their state and to bear the political responsibility, in the sense that they are eager to claim the right to risk their own happiness by depending on their own judgment. It is undeniable that the tendency of state life is towards refusing to rulers or administrators the power to make decisions without being criticised. Kingship with its sacredness and its "responsibility only to God" is fast disappearing; and it will clearly be followed into oblivion by the idea of concentrating judgment and administrative decisions in a small group.

Finally (c) the undeniably great effects of militarism upon state-organisation (the amounts paid for army and navy, spying or secret service, nationalistic education, etc.) are no

¹ Rousseau points out that the larger states become the more terrible wars are. So that all the internal organisation seems to make only more effective the attempts to destroy all organised life.

proof that these effects are of the essence of the state, but only evidence that the idea of the state is not yet enough developed for us to shake off devices and habits which were useful or necessary in a pre-political world. In the same way, the world of industry shows everywhere immense wealth of a few co-existing with degrading poverty of the many. But this is not of the essence of industry. It is a survival from barbaric chaos. It is true that war is not simply a bad habit but an institution,—an institution with political connexions so universal that if it could be eliminated the whole structure of political society might be changed: but, even so, it is not essential to the structure, as cancer and tubercle are not essential to the body.

As for the concentration upon domestic development, this would only prove that one element in the idea of the state had been appreciated more fully than another. At most it is a negative indication with regard to external relations of the state; and that it does not prove the idea of the state to be the separation of the interests of citizens and aliens will be shown when we come to the positive evidence in favour of our thesis. It is, indeed, sometimes said that the spiritual world in which a fully developed man lives has no organisation beyond his own state;¹ and this is perhaps connected with regarding the state as the highest embodiment of a Charity Organisation Society: but this also may be replied to in the positive proof of the contrary conception. That concentration on domestic issues is not an exclusion of change in external contact is indicated by the change in the nature of a *frontier*. In old times the frontier of a state was a barrier, a waste, an interval *beyond* which another state existed. At present a frontier is often only an administrative division, as between Canada and the United States, and it is always a line of *contact*. There are no waste "marches" except the sea.

Analysis of the history of the state shows that (1) the common interests of its own citizens and subjects, for which most men agree that the state exists, can only be secured if the state also aims at the interests which are common to citizens and aliens; (2) there is an increasing impatience as state-life develops with the divisions and differences between governments and still more impatience with the militarism and periodic wars which delay domestic reform or obstruct ordinary conveniences; (3) there is a rapidly developing organisation of the external relations of states on political (non-military) principles. Such indications imply that one

¹ Cf. Bosanquet in *Proceedings of the Aristotelian Society*, 1916-17.

element in the idea of the state is *interstate political organisation*. First, to the most simple minds it is clear that order cannot be secure within a state unless it is secure also in coterminous states. This idea was used as an excuse for the intervention of Austria in Serbia and of Great Britain in the Transvaal. The action taken destroyed rather than promoted order; but the aim was order outside the frontiers of the state. The same kind of idea was used to support the United States' war against Spain in Cuba. We may, however, omit the discussion of the methods used; for our point is that every state is concerned in the promotion of order and liberty *outside* its own frontiers, even for the sake of the interests of its own citizens or subjects and quite apart from a general support of the principles of justice. Again, the state is concerned with the suppression of crime and disease; but crime of the most anti-social kind and epidemic disease are independent of state frontiers. Each state, therefore, can only perform its functions for its own citizens adequately by organising its relations and co-operating with all other states. Cholera was only subdued in Europe when the states of Europe acted together: the "white slave" traffic is only controlled in so far as there is agreed common action between states. It follows that it is of the essence of the organisation for order and liberty that it should imply a co-operation not only between its own members but also between all these and those who are not its members. If the state is conceived as a relation between certain human beings, who are citizens or subjects, it must also be conceived as relating all these to non-citizens or aliens. The state is "for" and looks towards inter-state political organisation; without which as a state it is embryonic or primitive, since it cannot at all adequately perform the functions for which it exists. States differ in territory, in number and kind of inhabitants, in methods of administration and legislation; and none is completely organised until the relation of each with the other is organised. Each is unable to perform its fullest and best function until it is interrelated organically with every other, as the limb of the body cannot be perfect unless it is organically connected with all other limbs of the same body.

Secondly, the impatience felt by the more highly developed citizens, when war or the preparation for war interferes with political development or with activities dependent upon such development, is a sign that the underlying tendency of state-life is towards the elimination of war. What has been achieved by the state is the ground and reason for the impatience at war or militarism; the state, therefore, is itself

committed to the results of the tendency, from which indeed the state itself arose, and of which the present state is a partial embodiment. But the elimination of war is a mere negative. The tendency we refer to implies in the place of military relations between states, not *no* relation, but a *political* relation.

We do not assert that there is any common consciousness of a need for inter-state political organisation. But we assert that there is, and has been for some time past, a general tendency to regard war and the preparation for war as a nuisance and an interference with civilised life. This was not always so. In mediæval times war was accepted much more generally as in "the nature of things"; and in the aristocratic philosophy which remains to us from the Greek tradition, war is implied as slavery is implied to be a necessary element in the structure or life of society.

With this impatience we may connect the "economic mind" of modern times; for political theory and practice are much more consciously economic in their tendencies than they were in mediæval times. With respect to the relation between states it may be held that commerce is an instrument of policy by which a state can obtain advantages over its rivals, the other states. The other aspect of the same theory is that the state exists to promote the commerce of its citizens, to the disadvantage of the commerce of aliens. We omit the consideration of the economic errors involved in regarding (1) the quantity of commerce as static, so that what one gains another loses, and (2) the sale of goods as a gain to one party only in the sale. The political theory implied in the above conception of state action is that the state exists for promoting the economic wealth of a small group of its citizens and that administration is better if it controls a larger number of persons or a more extensive territory. Only on such grounds could one argue that the state exists to overcome other states commercially. And in opposition to this we say that men are increasingly impatient of state quarrels arising out of economic rivalry. No such quarrel can ever be maintained without a belief that the real reason for the quarrel is a distinction of moral ideals. For the tendency is to suppose that the state supports civilised life and civilised life depends more and more upon reserves of goods drawn from all quarters of the earth. The economics of the world market demands the conception of the state as essentially promoting amicable relations with all other states.

The third proof of our thesis is the formation of inter-state political organisation. The facts are sufficiently well known

and we need not describe the various commercial Treaties and Conventions (which provide interstate legislation) and the various offices, the Postal Union, etc. (which provide interstate administration). We pass to the philosophical interpretation of these, in so far as it affects the idea of the state. Clearly such legislation and administration is an embodiment of the political spirit, if we may use that metaphor. The organised community to which a citizen belongs is, therefore, not to be identified with his own state; and the state is not, even in the purely political realm, a complete whole. The average man is not yet, perhaps, emotionally stirred by the new conception of the state or by those activities of the state which, being newer, promise more for the future. The commonplace politician is still troubled by the myth of nationality—Britannia, la France or Deutschland; and he is still obsessed by the narrowest interpretation of sovereignty. But already a change is occurring in the popular mind and, in any case, the commitments of men, driven by necessity, have outrun their imagination: the state is organically related to other states. This does not invalidate the conception of the sovereignty of the state in its strict sense, as final authority for its own citizens. And the new conception will not make the state less worthy of allegiance or affection: for men may serve with great devotion an institution which they know to be only part of a whole. As an instance we may cite the devotion of its members, the Jesuits, to the Society of Jesus. But a devotion to the State as a part, or limb, in a greater body will probably correct the insane chauvinism which sometimes is to be found even in the apparently reasoned statements of professed philosophers.

We do not argue that the formation of a world-state or even of a world-federation of states is implied in the development of the idea of the state. These older forms of political life are inadequate to express the new situation. Inter-state organisation has produced a new type of political relations; and it is this new type which we find to be implied in the idea of the state, when we consider its external relations. This new type of organisation is of practical importance for all citizens, whether or not it results in a League of Nations. But philosophy should not lag behind. The tradition of Rousseau and Kant should not be forgotten; and the philosophy of to-day should be able to pierce to the underlying tendency which shows the true nature of state life. The particular element in state-life, the inter-state relation, to which we have referred, will provide some evidence for dealing with other issues too long neglected by political philo-

sophers as, for example, the relation of state-loyalty to Trade Unionism or to certain forms of Christianity, the limits of the moral responsibility of state-agents for their action, and other problems. All these problems are greatly modified if the nature of the state involves co-operation with and not opposition to other states. And indeed the whole question of the moral obligation involved in citizenship will be transformed if we no longer regard any particular state with that mystic adoration which is implied in the Hegelian philosophy.

It may not be seemly in the serene groves of philosophy to make too pointed an application of philosophical principles to current events : but we may point out some general consequences which would follow from the acceptance of our idea of the state. First, it would follow that, if the state may demand military service because of the evils it has inherited from pre-political life, the state may and should repress the impulses, speeches and actions which maintain or create division and hostility between states in times of peace. The method of repression may be subtle and indirect : it certainly could not be punitive or vindictive : but it is implied in the idea of the state above described that bellicosity in time of peace is a crime. Secondly, it would follow that the highest service of the state is not defending the state from others but promoting directly the inter-state organisation for common purposes of citizens and aliens. Thirdly, it would follow that much thought and imagination need to be given to the development of that element in the idea of the state which we have emphasised in this essay. Fourthly, the state is not a "sumnum genus" in political categories, still less is it so in general social theory. Fifthly, philosophers should perhaps read blue-books, dispatches and "social documents," before attempting to compose commentaries on Plato and Aristotle.

VI.—DISCUSSIONS.

FORMALISM AND THE *A FORTIORI*.

THE contributions of Dr. Mercier and Mr. Shelton in No. 103 do not call for as much criticism as Mr. Pickard-Cambridge's in No. 102.¹ For, as Dr. Mercier notes, our discussion is taking an almost unprecedented course among philosophers, and threatening to end in complete agreement. Partly, perhaps, because it never was my aim to 'wring' Dr. Mercier's 'withers, or to deny Mr. Shelton's claims to be a consistent believer in Formal Logic. I must acknowledge too that both have made me very handsome concessions.

(1) Dr. Mercier has disclaimed the traditional notion of 'validity'. He reduces it to "the personal attitude towards an argument or a conclusion" which treats it as uncontested (p. 340). A logic which is willing to recognize the part personal attitudes play in thought is uncontestedly bound to become humanistic.

(2) He confesses (*ibid.*) that when he calls an argument "generally valid," he only means "in most cases," and has not necessarily considered the rarer and less obvious cases in which its conclusion may be contested. This is not only disarming, but accepts the true analysis of what are called 'universal' truths, as I think I have shown in my article in No. 89.

(3) Dr. Mercier's exposition (p. 341) of the $A > B$, $B > C$, etc., form can hardly be bettered; I welcome his conclusion that "for one purpose A may be longer than B, for another purpose A may not be longer than B," and trust that he has made this matter so clear that Mr. Pickard-Cambridge can understand it. I must, however, point out, first, that I never argued that because it did not always follow that because $A > B$ and $B > C \therefore A > C$ it never did (*cf.* pp. 341, 345), and secondly, that the 'illogicality' of "stating the premisses for one purpose and applying them for another" needs to be qualified. For do we not always apply premisses we have found to hold for one purpose to another, when we use premisses at all? We are always arguing from one case to another, or applying a principle to a fresh case. So to stigmatise this procedure as 'illogical' seems injudiciously to widen the gap between actual reasoning and logical theory.

(4) Dr. Mercier admits that the illustrations conventionally

¹ *Cf.* No. 104.

used by logicians are "not real reasonings at all, but are merely verbal forms" (p. 340). This I hail as the most valuable concession of all. For once it is granted, the whole edifice of Formal Logic collapses: I fear therefore that no logician who retains any taint of Formalism will concede it.

In addition to these concessions I am also grateful to Dr. Mercier for his account of how he conceives the relations of 'validity' and 'truth'. To equate the 'valid' with the *incontestable* is as large a departure from tradition as to translate it into English, and to conceive the 'strong' as the logically valuable. But *incontestable* is a large order. It is as hard for mortal arguments to become *incontestable* as to *start from* (absolute) truth, as both Dr. Mercier (p. 344) and Mr. Shelton (p. 355) still seem to require them to do. And Dr. Mercier hardly recognises the full scope of this difficulty, which seems to me to render nugatory his distinction between the categorical and the hypothetical syllogism and ultimately his whole doctrine of the existence of 'valid' forms.

As I understand it, his doctrine is (a) that 'validity' pertains only to hypothetical arguments, which state necessary connexions of ideas, but assert nothing about matters of fact. In these "we run no risks," and have forms which "guarantee the validity of the conclusion," so that it cannot be contested (p. 345). But validity has nothing to do with truth. A 'valid' conclusion may be "false, absurd, nonsensical or inconceivable". (b) If, however, "we desire to arrive at truth we must start with an assertion of truth," and open with a *Because . . .* (p. 344). We then "deal with facts, or with what are asserted to be facts" (p. 345). This procedure incurs risks; "at every step there is a liability to error". Its truth is *material*, and it may be insuperably difficult to satisfy its conditions. Moreover "material reasoning may be invalid," though we have not noticed it. The A which looks so like B as to be called B, may not after all be a B for the purpose of the argument. Or "there may be B's not C's that we have forgotten or overlooked or had no chance of experiencing, and A may be one of these". If so the conclusion is got *invalidly*, though it is not necessarily false, and may chance to be true. We can then clear our conscience by confessing our sin; if we declare the conclusion "probable or possible, the reasoning is valid" even "though the conclusion may not be true" (p. 345).

Now this doctrine is assuredly a great advance on anything logicians have hitherto propounded on the subject. Nevertheless it does not seem to remove all the difficulties.

(1) It is clear that a descent must somehow be effected from hypothesis-spinning into the world of fact. If this is not done, the *incontestable* 'validity' of the hypothetical form remains irrelevant to the procedure of actual reasoning. Now this descent must take the form of an assertion that some hypothesis *applies in fact*. But as a categorical assertion it will have the logical

character of such assertions. It will not be 'valid,' and may be in error. Hence we shall still have to trust to material truth to bring formal validity into action, and the risk no hypothetical reasoning can disclaim is that of failing to apply to reality.

(2) Mr. Sidgwick has shown that there are not *in fact* any incontestable forms. Even the Syllogism only seems 'valid,' if we abstract from the application thereof. So soon as we try to use it, its middle term may develop a fatal 'ambiguity'. I have shown in this discussion that the *A Fortiori* is no more exempt from this defect than other 'forms'. True, when a formal reasoning thus becomes invalid, this is always due to the *material* circumstances of the case. It may always be contended therefore that the form 'as such' is all right and that a 'material' fallacy of Accident has defeated the conclusion (*cf.* my *Formal Logic*, pp. 200, 355). But is it not futile and fatuous to conceive 'validity' as a valuable quality which forms possess only while no one tries to use them?

(3) In considering Dr. Mercier's account of material truth let us first note the ambiguity of the dictum that "to arrive at truth we must start with an assertion of truth". Is he speaking of *truths* or of *truth-claims*? It makes an enormous difference whether we are dealing with "facts or with what are asserted to be facts". If he means merely that a *truth-claim* must be asserted, he asserts a truism; for it is a *formal* impossibility to frame a judgment which does not *lay claim* to truth. But to *assert* a claim and to *prove* it are of course very different things, and apparently no claim is ever proved to the extent, and in the way, contemplated by Formal Logic. If, however, an absolutely certain incontestable truth is demanded, a *material* impossibility is asserted. If then we need so much as this to start from, we shall never get under weigh. To start at all, we shall always have to employ premisses which either avow or conceal that they are only hypothetically true. 'Material' truth, therefore, can never be purged of risk. It is never 'valid,' in the sense of 'incontestable,' though many 'truths' at all times are not, in fact, contested. It is always 'invalid,' in the sense that a question may always be raised whether the 'B' which is predicated of A in the major premiss can be identified with the 'B' which is predicated of C in the minor.

(4) Nor can a conclusion become 'valid' by claiming to be 'only probable'. 'Probably true' here only means true in an unspecified percentage of cases, *i.e.*, true in some cases, though not in others. But this is not enough to satisfy the claims of the Syllogism. To regard 'valid' conclusions as only probable would render universal conclusions impossible. It would mean that not AAA, but only AAI was a 'valid' Mood, and lower *Barbara* to the level of a 'subaltern'. I cannot think that Dr. Mercier has the heart to be so cruel to the most sacred traditions of Formal Logic!

(5) In view of these difficulties about his conception of 'validity' I cannot understand how he can say on page 349 "I think the validity of the *a fortiori* is unarguable". On his own showing its conclusion *may* (I should say, *must*) be only probable, on account of undiscovered flaws in the identity of the terms, whether a disputant sees it 'intuitively' or not. And if 'valid' means incontestable and the 'validity' of the *a fortiori* is really incontestable, how comes there to be such an argument about it?

On the other hand I can cordially applaud Dr. Mercier's insistence that Mr. Pickard-Cambridge has overlooked the important case of the objector to an argument who urges that the disputed 'case' does not properly come under the 'rule' applied to it. It is, I think, one of the many fatal gaps in the logical armour of 'Idealism' that there is never any discussion of the *choice* of cases and rules. It is always assumed that once it has been proclaimed that every particular must come under a 'universal,' the logician's duty is done, and that the questions *which universal?* and *why under this rather than that?* are meaningless. Hence the pathetic incapacity of 'logic' to aid in the advancement of the sciences, which are unceasingly engaged in formulating and testing alternative theories for apprehending the facts.

Coming next to Mr. Shelton, I must acknowledge and applaud the concessions contained in his agreeing (1) "that the term validity should not be applied to material implications" and that it is "quite true that a number of modern logicians are guilty of considerable confusion of thought and are without any adequate or consistent philosophy of the logic they approve and teach" (p. 354), and (2) "that no reasoning, no strictly logical argument is in itself a guarantee of material or empirical truth" (p. 355).

But Mr. Shelton thinks that these points do not suffice to justify my strictures on Formal Logic. I can only reply that his defence of Formal Logic is fully as damaging as my accusation. He urges (*a*) that it shares the inability to guarantee material truth with mathematics. But the difference surely is that the mathematician recognises that there is a question of the *application* of pure mathematics to physical reality, while the logician has *not* seen that there is an analogous question whether *any* logical form applies to any reality.

(*b*) He declares that the Schoolmen knew all about my difficulty, but inferred "from the same premiss that empirical truth is of an order inferior to rational truth and lies on a lower level" (p. 355). I marvel that Mr. Shelton should find this inference "quite as plausible". For once it is seen that the formal validity of a reasoning does nothing to secure its material truth, it surely follows, even in the case of a 'demonstration,' that the latter *has to come true independently and empirically*, and that the former can at most guide expectation. This is so plain, and the acumen of the Schoolmen deservedly stands so high, that it is incredible

that they should have deduced their belief in the superiority of *a priori* truth from a premiss which irrefragably establishes its inferiority.

(c) Lastly Mr. Shelton plunges into an utter dualism between 'logic' and 'common sense'. "The conclusions of practical life are commonly arrived at by processes which are not reasoning at all, and often by very bad reasoning" (p. 356). But it is not the business of logic to set them right. It has "to formalise only a small part of what we will call practical reason," most of which is "empirical and instinctive". What terrible misology! I am amazed that Mr. Shelton should think this a satisfactory answer to the questions about the place of logic in life. For it seems so much easier and more reasonable to infer from the situation that the logical analysis which has confessed its inadequacy and ended in this *impasse* has manifestly gone astray.

F. C. S. SCHILLER.

WHAT DOES BERGSON MEAN BY PURE PERCEPTION ?

On pages 26-30 of "Matter and Memory" (English Translation) Bergson considers "how conscious perception may be explained". It is very difficult to assign any precise meaning to the contents of these pages. Living beings are said to be "centres of indetermination," and "their mere presence is equivalent to the suppression of all those parts of objects in which their functions find no interest. They allow to pass through them, so to speak, those external influences which are indifferent to them; the others, isolated, become perceptions by their very isolation. Everything thus happens for us as though we reflected back to surfaces the light which emanates from them, the light which, had it passed on unopposed, would never have been revealed" (pp. 28, 29). "Our representation of things would thus arise from the fact that they are thrown back and reflected by our freedom" (p. 29). The passage should, of course, be read in its entirety; but these extracts seem to give the main points. If Bergson merely wished to give a picturesque description of the fact that we are most impressed by those aspects of things in which our own wants make us interested, his position would be plain enough. But he evidently means something more, and at first sight the passage seems intended to be a revelation of the actual process of perception; but from this point of view it is not easy to give a clear meaning to it. Bergson has begun (p. 26) by asking "that perception should be provisionally understood to mean not my concrete and complex perception—that which is enlarged by memories and offers always a certain breadth of duration—but a *pure* perception, I mean a perception which exists in theory rather than in fact, and would be possessed by a being placed where I am, living as I live, but absorbed in the present and capable of giving up every form of memory, of obtaining a vision of matter both immediate and instantaneous".

It may help us to judge whether Bergson has a theory of perception which admits of clear statement, if we try to understand what he means by "pure perception," and put together a few passages from other parts of his book in which he speaks of it. The phrase is one which he rather frequently uses and to which he evidently attaches importance, for it provides him with the key to the reconciliation of spirit and matter (p. 294).

In the passage quoted above, pure perception is perception from which memory is supposed to be entirely eliminated, and we are

told that such a perception would "give a vision of matter both immediate and instantaneous". Now at this stage of his book (p. 26) matter for Bergson *ought* to be, not the matter of the physicist, but matter as defined by him on the first page of his introduction, *i.e.*, "an aggregate of images," which he tells us, is the conception of common sense. The work of memory in perception, we have been told (p. 25), takes two forms—(1) "it impregnates the present with the past," and "covers with a cloak of recollections a core of immediate perception"; (2) it "prolongs a plurality of moments one into another" and "contracts a number of external moments into a single internal moment". Now if matter is an aggregate of images in the ordinary sense of the word, and if pure perception gives us an instantaneous vision of the images, and memory brings suitable images from the past to enable us to give a distinctive character to the images thus received, we have a description of ordinary or concrete perception which presents no special difficulties but is not startlingly new. But this cannot be all that Bergson means, for it leaves out altogether the second function of memory. The power which enables us to prolong a plurality of moments into one another and contract a number of external moments into a single internal moment is not what the plain man means by memory, and the moments with which it deals must be something very different from images—they only begin to have a meaning in connexion with matter when matter is no longer an aggregate of images but is something like the matter of the physicist.

When Bergson speaks of "pure perception," does he mean the perception of images in the ordinary sense of the word? He certainly does so sometimes. On page 312, in his summary and conclusion, speaking of "the experience which is regular and common to all men," he tells us: "This experience, the necessary field of our activity, is, on the contrary, what we should start from. Pure perceptions therefore, or images, are what we should posit at the outset." We may fairly assume then that in the passage on page 26 he believed that he was positing pure perception as the perception of the images, of which we become aware in our ordinary experience. It is true that in that passage he guards his position by telling us that, whatever theory of matter we adopt, even if we reduce it to mere movements, these movements are still images. But the answer to this is that the movements as movements are *not* images of which the human mind becomes aware in ordinary perception. And we may fairly ask that Bergson should make his pure perception either one thing or the other—either the perception of what common sense means by an image, or the perception of the movements or vibrations into which science resolves matter. Does he do so? On pages 237-238, Bergson, in a passage in which he is trying "to attenuate the opposition of quality and quantity," gives us a pure perception which is evidently not the perception of what common

sense means by images. It should be remembered that for Bergson "concrete perception" is our ordinary every-day perception as contrasted with pure perception :—

"Matter, as grasped in concrete perception, which always occupies a certain duration, is in great part the work of memory. Now where is precisely the difference between the heterogeneous qualities which succeed one another in our concrete perception and the homogeneous changes which science puts at the back of these perceptions in space? The first are discontinuous and cannot be deduced from one another; the second, on the contrary, lend themselves to calculation. But in order that they may lend themselves to calculation, there is no need to make them into pure quantities: we might as well say that they are nothing at all. It is enough that their heterogeneity should be, so to speak, sufficiently diluted to become, from our point of view, practically negligible. Now if every concrete perception, however short we suppose it, is already a *synthesis made by memory, of an infinity of 'pure perceptions'* which succeed each other, must we not think that the heterogeneity of sensible qualities is due to their being contracted in our memory and the relative homogeneity of objective changes to the slackness of their natural tension?"

All this would have been much clearer if Bergson had given an illustration of "the homogeneous changes which science puts at the back of the perceptions". Ultimately (p. 268) he gives the illustration of the vibrations which occur in the different coloured rays of light: but it is deferred until he has developed his doctrine of motion, and in place of a matter which means an aggregate of images has given us a matter which is resolved into motion and nothing else.

We may give the facts as they appear in the ordinary textbooks, and try to apply them to the passage just quoted from pages 237-238. The red rays of light are said to be due to vibrations at the rate of 451,000,000,000,000, per second: this is the least number in any colour of the spectrum. As we go along the spectrum the vibrations are said to increase till in violet they reach 789,000,000,000,000. Now these vibrations are obviously Bergson's homogeneous changes which science places at the back of perception. The concrete perception of red is of course heterogeneous, and it is this which Bergson considers to be a synthesis of an infinity of "pure perceptions". Now does Bergson mean that each "pure perception" is the perception of a single vibration, and that memory contracts these into our concrete perceptions of the colours? That certainly seems to be the meaning of this passage, and it also gives us the clue to the second function of memory on page 26, by which it was said to "contract a number of external moments into a single internal moment". It is difficult to see any other external moments in this case except the individual vibrations.

If the pure perceptions are the perceptions of individual vibra-

tions, they cannot be perceptions of the images of which human beings are aware; for the individual vibration will presumably be the same, whether the colour is red or violet. The difference of colour will only begin when the vibrations are collected. It seems to follow that at this point, just as matter has ceased to be an aggregate of images in the ordinary sense of the word, so pure perception has ceased to be the perception of what common sense means by image. Bergson nowhere tells quite clearly that by pure perception he means the perception of each individual vibration. But it is not easy to say what other meaning to attach to it in such passages as the following:—

“Spirit can rest on matter and unite with it in the act of pure perception, yet nevertheless be radically different from it. It is distinct from it in that, it is even then memory, that is to say a synthesis of past and present with a view to the future, in that it contracts the moments of this matter in order to use them and to manifest itself by actions which are the final aim of its union with the body” (p. 294).

“Pure perception, which is the lowest degree of the mind—mind without memory—is really part of matter as we understand matter” (p. 297).

But the question is complicated for Bergson by the necessity of harmonising his doctrine of the relation between mind and matter with his doctrine of real duration. The time to which the varying numbers of vibrations correspond is the homogeneous time of science, which to Bergson is a mere fiction and an idol of language. Real duration is the duration lived by our consciousness. The homogeneous time of science is infinitely divisible, and when we speak of it, no difficulty attaches to such numbers as 450 billions of vibrations in a second. But it is quite different with the real duration of our own consciousness; this, Bergson tells us, has “its own determined rhythm,” and “a given interval can only contain a limited number of phenomena of which we are aware;” and “it is impossible to quicken the circulation of our inner phenomena”. It is not easy to see why the real duration of our consciousness should not be capable of infinite degrees of expansion and compression. The only obstacle seems to be the statement on page 272 that “the smallest interval of time which we can detect equals, according to Exner, $\frac{1}{500}$ of a second”. One would think that a limit stated in terms of homogeneous time could have no bearing whatever on Bergson’s real duration. He does, however, seem to feel that there is a limit of this kind in the case of our consciousness: but he gets over the difficulty by saying that “it is possible for us to imagine many different rhythms, which, slower or faster, measure the degree of tension or relaxation of different kinds of consciousness” (p. 275). In this way we get to the conclusion that “to perceive consists in condensing enormous periods of an infinitely dilated existence into a few more differentiated moments of an intenser life, and in thus

summing up a very long history". It seems to follow that, as we ourselves undoubtedly do perceive, we must succeed in condensing the billions of vibrations of which Bergson speaks in spite of limits imposed by our own determined rhythm. But the whole passage leaves us rather doubtful whether at this point Bergson means pure perception to be the perception of an individual vibration or of a contracted group of vibrations. If, however, the latter is meant, we should have to ask how they came to be contracted, and no answer seems to be forthcoming. Perhaps, however, as Bergson has told us that the concrete perception is a synthesis of an infinity of pure perceptions we are meant to infer that the pure perception, which exists in theory rather than in fact, is exempted from the necessity of conforming to the rhythm of our own consciousness.

On the whole then we seem obliged to believe that when Bergson is dealing with a 'matter' which is resolved into numberless vibrations, pure perception does for him actually mean the perception of a single vibration, and that concrete perception means a group of these perceptions contracted by memory. It seems hardly necessary to point out again how remote this is from a 'matter' which is an aggregate of images, and from a pure perception which gives an instantaneous vision of images. In plain words Bergson seems to adopt a double attitude, and to move from one position to another, without giving notice to his readers. He wishes his perception to be what common sense means by the word. But at the same time he wishes to bring it into the closest possible connexion with the homogeneous changes which science puts at the back of it. He has indeed stated (p. 27) that the most rudimentary movements are images; but they are not images in the sense in which he used the term, when he started by telling us that his conception of matter as an aggregate of images was simply that of common sense. It seems to follow also that the passage on pages 28, 29, with which I started, is not an analysis of the actual process of perception, but is a metaphorical description intended rather to stimulate the reader's imagination than to convey precise ideas.

J. HARWARD.

VII.—CRITICAL NOTICES.

Mens Creatrix. By WILLIAM TEMPLE. London: Macmillan & Co., 1917. Pp. xiii, 367.

THE writer of this article desires in the first place to thank Mr. Temple personally for pleasure and profit derived from repeated reading of a book so admirable in its main features. *Mens Creatrix*, is that rare thing, a work of popular philosophy in the honorific sense of the adjective: it is philosophical because it is a determined attempt to deal thoroughly with the ultimate issues and values of life, popular in virtue of its lucidity, its freedom from the baggage of superfluous erudition, its wealth of felicitous illustration. It is also a notable contribution to Christian apologetics by an author who sees clearly where the real difficulties lie and nobly refuses to take refuge from them in one of those meaningless "Christianities minus Christ" which have been so numerous since Hegel taught the Lutherans of Germany how easily these ephemeral structures may be run up. Of course I do not mean to say that I should like to commit myself to all the positions adopted anywhere in Mr. Temple's book. In particular I should be inclined to dispute nearly all his "epistemological" views, and—though here I speak with the hesitancy of a very tiro—I think his theology exceedingly heterodox on at least one point of importance. And I do not suppose Mr. Temple expects any reader to agree with all the very decided judgments he passes on questions of literature and art. Personally I have much sympathy with his dislike of most of the poetry of Tennyson and Milton, but I should not like to make concurrence in this feeling into an article of a literary *Credo*, and still less to expect any general agreement on such a question as "What is the greatest picture in the world?" And,—perhaps it was a mere recollection of Nietzsche,—but when I read Mr. Temple's reference to Wagner's "cosmic opera" *Tristan und Isolde*, I felt tempted to wonder whether "comic" would not be the truer epithet. (Anyone who attends carefully to the second Act of that work will understand what I mean.) I may also, perhaps, be allowed to cherish a doubt whether the late Robert Browning (though the author of some admirable poems), really deserves to be exalted to a place beside Plato and St. John the Evangelist as an authority in spiritual things. I own that to me Dante or Shakespeare or Wordsworth would have seemed more worthy of the distinction.

Mr. Temple naturally enough divides his work into two books—the one is mainly philosophical, the other theological. Bk. I., *Man's Search*, might well have as a motto *Intellectus quaerens fidem*. It is an elaborate review of the ideals we set before us in Science, Fine Art, Conduct and Religion, and seeks to show how these various ideals of Truth, Beauty, Goodness, All-inclusive Unity point towards the Religion of the Incarnation as their complete and harmonious embodiment. In Bk. II., *God's Act*, we deal rather with *files quaerens intellectum*: it is an interpretation in terms of philosophy of what is originally a religion accepted by an act of faith. The object is to show how closely "God's gift" in the Incarnation of the Divine Word, as experienced in the Christian life and understood by Christian theology, corresponds to the Good which Philosophy shows to be sought alike in Science, in Art, and in the "practical life". As regards these various forms of the Quest, Mr. Temple rightly takes the position that no one of them can be simply identified with any other. They are different and independent, but in the end they converge, for their object, though many-sided, is in the end one and the same Good.

In the chapters which deal with Science, as it seems to me, Mr. Temple is not quite true to this position. He is very strongly impressed, mainly I think as a consequence of mistaken logical theories, with the alleged shortcomings of the intellect, and frequently, though not with entire consistency, seems to treat knowledge as an inherently inferior attitude of mind to its object by comparison with aesthetic appreciation of beauty. Hence the impression left on my own mind is that Mr. Temple's treatment of his subject steadily improves as he proceeds. His interest in Knowledge seems to me half-hearted and superficial in comparison with his interest in Art and Conduct. As far as Science is concerned, he hardly seems to be wholly faithful to the conviction that all the roads to the divine, though different, are co-ordinate. It is significant that though he is very willing to talk about the *μαθήματα*, he does not talk of mathematics at all like a mathematician, and is thus, in one important respect a *son insu* more of an Aristotelian than a Platonist. Similarly he allows himself to repeat very dogmatically certain logical theories of the *εἰ καὶ πᾶς* metaphysicians, of which some seem to be merely false, and others, if true, to be inconsistent with his own philosophical convictions. Right thinking on these logical and mathematical points is of such supreme importance for the very foundations of a theory of knowledge that I must ask the pardon both of Mr. Temple and of my readers if I dwell on the matter in some detail.

Even in the chapter which serves as introductory to the whole work, I find myself already breathing a trying atmosphere when I read, in illustration of the doctrine that "truth is a system" the statement that "tridimensional rectilinear space is the system articulated in Euclidean geometry" (p. 17). I am not sure of the precise meaning, but there seems to be a suggestion that

non-Euclidean geometry is distinguished from Euclidean by dealing with figures of more than three dimensions, and again that straight lines are not found in non-Euclidean geometries. Both suggestions, if they are intended, are, of course, simply erroneous and such as could never have been made by anyone who had given as much as a week to the study of the outlines of the subject. By comparison with other passages in which Mr. Temple recurs to the topic of geometrical method I am led to suspect that he also intends to say that the various propositions of Euclid are statements about "tridimensional rectilinear space," that this "space" is the "ultimate subject" about which they make assertions. This, however, is a serious error. What Euclid reasons about is the properties of figures of various kinds, straight lines, circles, pyramids and so on. He never has occasion to mention "space" at all. In fact *pure* geometry does not deal even with such properties of figures as Mr. Temple plainly has in mind when he talks of geometry. From the facts that he speaks as if the "non-Euclidean geometries" do not apply to "actual space," and that he illustrates the character of pure geometry by reference to the theorem about the sum of the angles of the plane triangle (Eucl., I., 32), which does not hold good in non-Euclidean geometry, it seems clear that by geometry he means from first to last *metrical* geometry. Now pure projective geometry takes no account at all of metrical properties, and as a consequence, the projective geometry of "Euclidean space" is identical with that of "non-Euclidean space". The whole difference between the systems of Euclid, Lobatschevsky and Riemann or Klein only arises when we come to lay down conventions about measurement. The famous fifth postulate (wrongly called by Mr. Temple an *axiom*) of Euclid, on which the peculiarities of Euclidean geometry depend, is just such a convention. It amounts to the assumption that if two straight lines *a* and *b* in the same plane do not intersect, a common perpendicular to them can be drawn from any point of either, and that the *length* of this common perpendicular (the *distance* of a point on one line from the other line) is constant. Or, more briefly put, Euclid assumes that "parallel" straight lines are equidistant. If we do not accept this postulate, there are only two alternatives; (*a*) "parallel" straight lines are *not* equidistant, (*b*) there are no "parallel" straight lines in the plane. If we assume (*a*) we are led to the geometry of Lobatschevsky and Bolyai, if (*b*) to that of Riemann or Klein. In both cases, it is clear that measurements will be expressed by means of some convention other than Euclid's. But we can establish such a correspondence between the various conventions that every proposition of Euclidean geometry has a definite corresponding proposition in each of the other two systems answering to it, and *vice versa*. Hence the *philosophical* importance of the difference between the three geometries seems to be *nil*, and in particular, there seems to be no sense in the view that one of them is the

geometry of "real" or "actual" space, the others of a "possible" but not "actual" space.

From a philosophical point of view Mr. Temple commits a much graver error when he says (p. 37) that "Euclid is concerned with the isosceles triangle as such, but he cannot move a step without the particular triangle *ABC*. . . . This weakness . . . is inherent in all thought." Here there is a double misapprehension. Mr. Temple wants to advocate Kant's erroneous view that sense-data are elements in all our knowledge. To prove this he argues that Euclid regularly proves his propositions in the first instance for the visible figure, triangle or what not, which appears in his diagrams. But the truth is that the thing which Euclid calls "*the triangle ABC*" is not the thing shown in the diagram. The thing in the diagram can never be known to be really isosceles, and usually mere inspection is enough to show that it is not isosceles. "*This triangle ABC*" is as much a *voyrōv* apprehensible only by thought as "the class of isosceles triangles". Euclid argues not from *aiōthqrov* to *voyrōv* but from an individual *voyrōv* to every member of a class of *voyrā*. His diagrams are strictly "illustrations" in the same sense as the pictures in an "illustrated edition" of a poet. The second mistake is the assumption that because Euclid usually employs a diagram, all mathematical, or at least geometrical, reasoning requires the use of diagrams. Mr. Temple forgets that there are branches of mathematics which deal with objects which cannot be even approximately symbolised by a diagram. The Theory of Functions, for instance, is full of examples. The point requires to be insisted on, because it of itself disposes of the Kantian dogma that all knowledge involves a synthesis of sense with thought. If this is false, agnosticism, at least of the Kantian type, is undermined at its base.

Still more important is the question whether Mr. Temple is justified, or even consistent with himself, in accepting, without question, the whole logical doctrine most familiar to us from the writings of Prof. Bosanquet. Is it true, for example, that every conclusion "modifies" its own premisses? This would be a very important and to my mind a very painful truth, if it were true at all. Hence I am glad to see that Mr. Temple's own illustration seems enough to prove its falsehood. He takes as his example the arguments for the Copernican view of the solar system. But what are the premisses in this case. If we may take Newton's *Principia* as fairly representing the "argument," they are (a) the results of the observations of Kepler, Cassini, Flamsteed and others, (b) a few geometrical propositions on the properties of the conic sections and the hypocycloid, (c) Newton's own assumed (or postulated) laws of Motion. Which of these groups of premisses is "modified" by the conclusions of the *Principia*? Not (a) for the *phaenomena* recorded by Cassini and the rest remain just what they were before; the whole object of the argument is to "save" them, not to "modify" them. Not (b) for Newton's

demonstration makes no change in the properties of the conies or the cycloids. And certainly not (*c*), the Newtonian "hypothesis" itself. What *did* undergo modification was merely the astronomical beliefs of those persons who were converted by Newton's reasoning. But the proposition "some (or most) men believe in the theory of Ptolemy or in the theory of Descartes" is not one of Newton's premisses, while the "apparent motions," which *are* part of his premisses are not "modified" one jot by the fullest assent to every one of the propositions of "Mr. Newton's incomparable book". It is true, as Mr. Temple says, that if by "the facts" we mean "the real state of the case," we cannot begin an investigation by recording the "facts," because we do not know what they are until the investigation is ended. But to say that the "conclusion" of the inquiry "modifies" the facts is merely paradoxical without being true. Unfortunately too many Oxford tutors seem to enjoy maintaining untrue paradoxes; they call it "systematic" philosophy. There are liberal shepherds in ruder climates who give the performance a grosser name.

So with the alleged discovery that the process of getting knowledge is "circular". So far as I can gather the meaning of this revelation, it only means that the ultimate postulates of science are not evident on inspection to every one, and that as our knowledge of fresh appearances increases our postulates receive new determinations. It has never been shown that it is really necessary for science that any of its propositions should be self-evident. The account of method given by Socrates in the *Phaedo* (still to my mind by far the best general account), says nothing of self-evidence at all. Nor has any reason ever been given for denying that *some* postulates are truths so simple as to be evident on inspection to any man of ordinary intelligence. And it is always an open possibility that even a postulate which could never have been formulated without previous comparison of multifarious observations, may, *when it has been formulated*, be seen to be true by direct inspection on the part of anyone who understands its meaning. Hence the alleged "circularity" of the process of establishing truth seems to me only another false paradox. If there really were a "circle" in scientific reasoning, I certainly do not see how it could be got over by maintaining with Mr. Temple (p. 17) and I suppose Prof. Bosanquet, that the "middle term" in an inference is "the system itself as a whole". For this is certainly false. For one thing we, when we reason, *are ex hypothesi* never acquainted with the whole "system," and consequently on these terms we could never draw a valid conclusion from *any* premisses. And for another, though all demonstration *ἐκ προνταρχούσης γίγνεται γνώσεως*, we do not require *all* the true propositions which belong to a given "universe of discourse" to prove any one specific proposition of the "universe," but only some of them.

I suspect that Mr. Temple greatly underrates the efficacy of

deduction because he identifies deduction with one of its own sub-species, subsumption. At least he seems to regard the traditional syllogism as the type of all deduction, and only mentions non-syllogistic deduction incidentally as a kind of curiosity. He quite forgets that while pure mathematics is wholly deductive it rarely employs a syllogism. This, I fancy, is why he regards the apodeictic certainty attained in mathematics quite wrongly as due to the purely nominal character of mathematical definitions. Of course no mathematical definition is really a premiss in mathematical reasoning. The ultimate premisses are always postulates either (1) asserting the existence of indefinable entities, such as the point, straight line, or plane, or (2) asserting some undemonstrable relation between these indefinables. Theoretically all definitions could be abolished by merely writing out a group of symbols in full instead of introducing an abbreviated sign which is declared to be equivalent to the group "by definition". The only real reason for using definitions is the practical one of avoiding cumbrous and complicated groups of symbols. If, e.g., we liked to say on all occasions "figure with three straight sides" we need never mention rectilinear triangles. The real reason why "mathematical certainty" is confined to mathematics was long ago explained by Descartes. It is that the primitive *indefinables* of mathematics are few and easy to apprehend, and the primitive *indemonstrables* also few and possessed of a high degree of plausibility. In short, I feel bound on these logical questions to urge that, with all respect for Prof. Bosanquet, his *Logic* is not so safe a guide as an older work which was once regarded in Oxford with respect,—Aristotle's *Organon*. Mr. Temple seems to me unconsciously to have given the *coup de grâce* to the "system" as an omnipresent "middle term" by repeating, in illustration of its functions, the story of the liberal theologian who laid it down that there surely must be a "sort of a something". That is just what the "system" seems to be, and for that very reason it seems as poor a substitute in logic for a precise and definite middle term as it is in theology for God.

Another theory of Prof. Bosanquet's on which Mr. Temple lays stress, though I think it quite incompatible with his own most important positions, is the doctrine that a completed knowledge would form a huge "disjunctive judgment" with "Reality" for its subject. The consequences of this view seem to me fatal. It leads at once to the theories that pure Mathematics is the *only* type of true knowledge, that knowledge can be only of the "universal," that the relation of Cause and Effect is identical with that of Ground and Consequent, and that "the temporal" is unreal. As this last consequence is fatal to any philosophy which takes either practical morality or practical religion seriously, I am glad that Mr. Temple refuses to accept it, though he does not seem to see that in rejecting it he is turning his back on the whole logical system of Prof. Bosanquet. The odd thing is that neither he nor

Prof. Bosanquet seems to understand that a completed knowledge which could be put into the form of an infinite disjunction would not contain a single existential truth about matters of fact. The knowledge of the omniscient knower could be formulated thus. Reality is such that if the conditions $E_1, E_2 \dots E_n$ respectively are fulfilled, you have the results $s_1, s_2 \dots s_n$ respectively. But there would be nothing in this huge disjunction to show whether any one set of conditions E_n is ever in fact fulfilled, or if so, when and where. The omniscient knower would be aware of a possibly infinite range of possibilities, but not of a single fact. All biographical and historical truth would be outside his ken. Nay even the truths of fact contained in Mathematical Physics or Astronomy would be hidden from him. He would know, *e.g.*, that if particles gravitate according to the law of the inverse square a certain state of the physical world must follow, but if they gravitate according to some other law the consequences will be different in such and such ways, but he could not tell according to what law particles do in fact gravitate. And I wonder very much why any one should think knowledge of this kind knowledge about "Reality" *par excellence* or call it omniscience. As Mr. Temple reminds us it was an outstanding problem of the schools *quomodo Deus sensibilia cognoscit*. But surely it is a crude solution to say that He knows nothing at all about them.

To turn from logic to psychology, I cannot agree with Mr. Temple's very strong assertion, in his chapter on *Intellect and Imagination* that imageless thinking is impossible. I am bound to say a word or two on the point because it seems to lead to an unfortunate confusion about the relations of Art to Science. Mr. Temple's view is that a thought has two aspects, it is a "meaning" and also a "mental image". Science concentrates its attention solely on the "meaning" and is thus a one-sided affair in need of completion and supplementation by Art, which is interested in the other aspect, the "image". This theory seems to me in need of reconsideration in three respects. (1) Is it a fact that there is no thought without "images" as its vehicles? I believe that, unless we take a very restricted view of "thought," the answer must be that there is imageless apprehension of meaning. When I read a sentence in *Mens Creatrix* and understand it, I should certainly say that I am exercising thought, but I see no reason to suppose that in such a case there need be any succession of "images" intervening between my sight of the non-mental black marks on the page and my understanding of their meaning. So with any ease of exhibiting practical "presence of mind" by doing just the right thing in a critical situation. Here again we have thought, or intellect, since we know what we are going to do, but I feel sure that what we directly understand is the situation itself, not a series of "images". Again, I feel quite sure that we can contemplate our own mental activities by introspection, but what an "image" of a mental activity would be is more than

I can understand. (2) Hence I cannot see the necessity for the kind of supplementation of Science by Art of which Mr. Temple speaks in this chapter. Indeed, I do not see that it would be called for, even if all thinking did require mental imagery. Even if I could not think about Fabius Cunctator without having an "image" of him, still the object about which I think would be Fabius himself and not this "image," and therefore, though my knowledge of Fabius may be very imperfect, I do not see how the imperfection can be in any way due to my neglect of this "image" or could be "supplemented" by switching off my attention to the "image".

No one really knows better than Mr. Temple that in real fact the bricks with which Art builds are not "images" but sense-data, colours, shapes, tones, and the like, as his admirable tenth chapter proves. Then, when he has really got to the work of expounding a theory of Art, we hear no more of the unfortunate suggestion I am now criticising. (3) Finally, I cannot feel that Mr. Temple is quite happy in his account of the "unfinished" character of Science, which he contrasts with the completeness of a great work of Art. Of course, Science is always unfinished in the sense that no man ever knows all that there is to know, just as a work of Art is always unfinished in the sense that none is so perfect that it might not conceivably be bettered. But is this really a defect in the intellect, any more than it is a defect in a great picture that it is never complete while it is still a-painting? It is true that Science, which is analogous not to a picture on the walls of an Exhibition gallery, but to one still on the easel, looks as if it might go on endlessly asking for a *Why* beyond every Wherfore we have reached. But even now, as I have suggested, we do seem to come sometimes to principles for which we no longer seek a *Why* because we see their truth to be evident, and I conceive that Mr. Temple's omniscient divine intellect would apprehend all truths as dependent on such evident principles. Hence, as it seems to me, the contrast between Art and Science after all only comes to this, that, as Mr. Temple also says, Science deals only with universals, Art always aims at producing individual wholes. As no individual is really a mere complex of universals, both points of view are required to express life in its fullness, and both, alike, have their limitations. Art is not "above" Science nor yet "below" it, but simply different. Hence I feel some misgiving about the statement that "Art is the climax of the contemplative activity of mind; its product is generically superior to that of Science, for it is capable of embracing this with other aspects of reality in addition" (pp. 42-43). Is it so clear that Art is the climax, the shining head of the contemplative's Jacob's ladder? Do we ever reach the topmost rung while we are still rapt in the contemplation of the sensuous glories of a mutable world? Plato, in the *Symposium*, it will be remembered, makes the ascent from Art through Science to something which is better than both. And,

of course, none of the goodly crowd of mystics would allow that Art is the highest form of *θεωρία*. In any case, is it not clear that Mr. Temple's claims for Art will not stand investigation? Art is not all that Science is and more. It is of the very nature of Art to be selective, to *refuse* to look at some things. The fate of the realistic novel, with its "documents" and scientific "authorities" and its inability to shut its eyes to the seamy side of things or its nostrils against the malodorous, is suggestive. Even the very "completeness" of the work of Art, on which Mr. Temple lays stress, is falsification. Art which is too much "like life" is bad. For the actual story of a human life is always full of the unfinished. Any novelist who allowed blind "chance" to have the importance in a story which it has in actual life would be at once condemned for incoherence or abuse of coincidence or both. In real life Lady Macbeth might have died of influenza and ensuing complications before her nerves began to break down, and Tom Jones would probably have been knocked on the head in a brawl without ever being reconciled to Allworthy, but Shakespeare and Fielding must not dispose of their characters so.

I pass to another point of the first importance, the relation of Time to Reality. I am absolutely in accord with Mr. Temple's rejection, in his chapter on *Knowledge, Truth and Reality*, of the view that pure Mathematics is the one and only type of Science, though I doubt if he is quite right in finding the differential of Mathematics in the "timelessness" of its propositions. If this view were correct, I hardly see how there could be such a Science as pure Kinematics, since all the propositions of Kinematics involve as part of their meaning the notion of temporal succession.

The whole subject of the relation of Time to Truth seems to me hopelessly confused by Prof. Bosanquet's peculiar view about the "timelessness" of truth, which is repeated by Mr. Temple. Of course, in a sense, you can say "once true, always true," but this is really an empty tautology. It only means "what is true is true" and therefore at whatever moment a true proposition is thought its thinker is thinking truly. But the real difference is between propositions which are *about* the temporal and those which are not; and when logicians like Prof. Bosanquet infer from their "once true, always true," the portentous consequence that "what is *about* the temporal is not true," they are committing a very elementary fallacy.

Careful examination will show that we need to distinguish three classes of statements, (1) those which do not involve reference to time at all in their meaning, e.g., "23 is a prime number"; (2) those which involve an assertion about *every* member of some *class* of moments (which may, of course, be the class of all the moments of time, or only of some of them or even a class containing only one moment); (3) those which make a direct assertion about an *individual* moment or a number of individual moments of time—*i.e.*, those which include a reference to a *date*. Mathematics, I

suggest, contains propositions of classes (1) and (2) but none of class (3). *E.g.*, all the truths of Geometry are truths of class (1). They are *aeternae veritates* in the sense that no reference to time whatever enters into their meaning. Geometrical relations are wholly non-temporal. Kinematics or Dynamics, on the other hand, always refer in their propositions to time, but always to every member of some class of moments. The moments are specified as those forming such and such a class, but never directly denoted. The peculiarity of Mathematics is that it contains no proposition which directly asserts anything about *this* or *that* moment. All propositions, like those we meet with in history or biography, which make statements about actual *dates* belong to the third class. No ingenuity will enable you to replace a proposition of any one of these classes by a precisely equivalent proposition belonging to another. *E.g.*, you cannot without absurdity introduce a temporal reference of any kind into the enunciation of the Pythagorean theorem or the Binomial theorem. The law of gravity, on the other hand, and dynamical laws in general, belong to the second class. This is shown by the fact that in formulating them exactly you have to introduce a symbol for "the time," and that they become meaningless if the time-symbol is suppressed. Even where an explicit time-symbol does not occur, as, *e.g.*, in the formula for Boyle's Law, $pv = K$, the reference to time is implicit, since the meaning is that *at any moment* the product of the pressure into the volume is the same as at any other.

So we seem to be able to express the law of gravity in terms of mass and length only, but we discover that time is really implied as soon as we ask how the masses of particles are to be ascertained. Again, no statement involving an actual date can be expressed in the symbols of Kinematics or Dynamics. *E.g.*, "The battle of Trafalgar was fought on 21st October, 1805 A.D.". That means that the fight occurred at a certain distance in time from the moment we take as the beginning of the era of Our Lord. And we can only say when that era began by saying that it was 1917 years and so many odd months, weeks, etc., before *now*, and no symbol will represent *now*. Thus the whole theory that no proposition can be strictly true until it is made "timeless" rests on a thoroughly illogical attempt to disregard a fundamental distinction between the three types of proposition. There may be a sense in which it is true and important that the real is the eternal, but this is not true in the sense that a proposition which has reference to all times or some-times as part of its meaning is false, or requires to be completed or "transmuted" to make it quite the truth.

I have already anticipated most of what I might otherwise have had to say about the chapter on *Judgment* in which Mr. Temple follows Mr. Bradley and Prof. Bosanquet pretty closely, but I may call attention to a point or two. I cannot fully understand the

importance which these philosophers attach to the assertion that "Reality" is the true logical subject of all propositions. I do not see how it adds in any way to the meaning of "Queen Anne is dead" to say "Reality is such that Queen Anne is dead". The prefatory "Reality is such that" seems to me to be as purely a formal piece of politeness to the *κριτήρες*, and as little significant as the qualifying (D.V.) which we sometimes see inserted in the announcement of a concert or a sale by auction. But the otherwise harmless formula becomes a source of positive mischief when it is treated as a ground for maintaining that you can never really know anything about anything unless you know everything about everything. Mr. Temple's own attempt to recommend this paradox by illustration seems to me to refute it. He imagines an inquirer who is trying to understand the statement that X's character was permanently influenced by the tone of his Public School. The questioner finds that he is committed to an inquiry into the Public School system which leads him back through English history and general European history to geology and astronomy and finally lands him in the nebular hypothesis. (Mr. Temple leaves him at this point; perhaps he does not know that the primitive nebula seems, in the opinion of some eminent astronomers, to have been a little blown upon, or he would have taken his unhappy inquirer even further afield.) Surely, however, most of the information Mr. Temple's inquirer would gain by his enormous survey of the sciences would be wholly irrelevant to his special purposes. A father does not in fact require to be a geologist and astronomer in order to decide whether Eton or Rugby will be the best school for his son. Most English and European history has no special bearing on the question what the tone of our Public Schools is, and geology and astronomy, so far as I can see, have none. Mr. Temple forgets, among other things, that it is not even certain that the prosecution of astronomical research would end in establishing any one hypothesis about the formation of the solar system. It might lead to the conclusion that several different theories are equally compatible with the known facts. At any rate I should suppose any number of rival cosmological hypotheses might yield identical results so far as you only considered those which are relevant to the problem about the Public Schools.

I do not deny that in the end "all things may be in each" in the sense that a difference in any one may make some difference to every other. But I do deny that there is any ground for believing that any difference in anything must lead to differences in all others which are relevant to a given inquiry. The world may be a unity in some sense; it does not follow that it must be a unity in *this* sense, and no one is entitled to take so tremendous a doctrine for granted. It is the task of philosophy to *find out*, if it can, in what sense all things are one. Mr. Temple even goes so far as to say (p. 57) that I do not really know what "*this* is

red" means unless I know "all about red," and that to know that I must know the complete list of red things. Would he admit that since I do not know who the authors of all books are (*e.g.*, who was the author of *Junius* or the book of *Wisdom*), I do not really know that Mr. Temple is the author of *Mens Creatrix* or Browning of the many poems quoted in that work as his? Such portentous consequences cannot be established by simply insisting that "Truth is a system". A family is also a system with a special unity of its own. But it does not follow, *e.g.*, that I cannot know the postal address of one member without knowing the addresses, dates of birth, political opinions and the like of his parents and all his brothers and sisters. The University of Oxford is a system, but I can be on the books of one College without being on the books of all. A pack of cards is a system, but if I am taking part in a game of whist I can know exactly what cards are in my own hand without knowing exactly who has the others, as actual play often reminds us by its disagreeable surprises. Mr. Temple himself, if he plays at all, has probably had in his time the experience of being trumped in the first round of his best suit.

With the remaining chapters of the section on knowledge which lead up, through a discussion of Individuality, to the conception of Value, I am glad to find myself in much more substantial accord, though there are many incidental remarks scattered through them which strike me as strange. *E.g.* it is odd to find in a generally excellent discussion of "external relations" the false statement that "the weight of a book in its place on the shelf is the same as its weight in my hand" (p. 75) or to be told (p. 83) that the principle of the distinction between "primary" and "secondary" qualities in Locke is that the former are "identical for all intelligences," while the others "vary from one person to another". Shape was one of Locke's "primary" qualities and no two men can possibly perceive the shape of a thing alike, as each sees it in a different perspective. And on the other side the fact of colour-blindness is not of itself enough to prove that the same surface is really red (for me) and gray (for you). It might be that it is really simply red, but that it requires an adequately constituted retina to discern its true colour. Such a theory cannot at any rate be simply dismissed without argument. And it is clear that Mr. Temple falls into an inconsistency when he goes on to say that the variable secondary qualities are "products" of the "mathematically determinable" and "constant" primaries. A product of determinate factors should itself be determinate. Also there is a confusion in the words "identical for all intelligences". A colour-blind man, let us say, cannot *see* any difference between the colour of the grass in his garden and that of the bricks of his garden-wall. But there is nothing to prevent his *intelligence* from believing in the reality of a difference which he cannot see. The true basis of the distinction seems to me to be rather that the primary qualities are those in virtue of which inorganic bodies

interact with one another, the secondary those in virtue of which they only act upon organisms. This is why the "secondaries" can be disregarded in Physics or Chemistry, but become important in Biology. Two stones, to put it metaphorically, are not interested in each other's colours, but an insect is keenly interested in the colour of a flower. The point of vital interest raised at this stage of the argument is that by which a transition to the discussion of Art is effected. The mention of the secondary qualities leads Mr. Temple to dwell on their aesthetic value. As against Dr. G. E. Moore he holds very strongly that though value is a quality of the object appreciated, it is created (partially and perhaps wholly) by the appreciating mind. He even says in so many words of the beautiful object "its value begins when it is appreciated" (p. 84). Now if this is true, since appreciations of value are eminently individual, it follows that no *one* mind can appreciate all the values of things, the more that "some of the elements are intrinsically incompatible". Thus if all values are to be appreciated, and I gather that Mr. Temple means that they *must* all be appreciated because otherwise they would not all exist (and they do exist), there must be a society of spiritual individuals to appreciate them, in fact there must be "the Communion of Saints". Since the existence of this society is enough to provide for the appreciation of all values, Science cannot go behind it and the intellect "*working only upon the principles of its own procedure*" will never lead to the Transcendent God of Religion" (p. 86). But (p. 88) "as the Universe comes to focus" in individuals, it realises its own value. And the value of this "unity of all values" cannot be grasped by any member of the Universe. Ergo if we are led on other grounds than those of Science, to believe in a Transcendent Divine Mind which is adequate to appreciate the value of the unity of all values, Science may welcome this belief as a natural culmination of its own edifice. And it is hinted that the "other grounds" may be discovered from a consideration of Art. It is a sufficient ground for the creation of the actual (*e.g.*, for the painting of a picture on canvas) that the artist discerned that the picture would, being beautiful, add to the stock of existing value. Art thus appears as the link between thought and creation, and we are offered as the final deliverance from the restless quest for causes behind causes the conception that the World has been created by a transcendent will for the sake of the values it contains (pp. 88-90). At least this is how I understand Mr. Temple to be reasoning, and, if I have understood it correctly, the only criticism I should be inclined to pass upon it would be that it is perhaps a little unfair to Science. As the argument stands, Mr. Temple seems at first sight to be pleading for the recognition of a Divine Mind which apprehends *all* values on the curious ground that *no* mind can apprehend them all. Of course the apparent illogicality can be easily removed if we recognise the fundamental differences between a divine and a human mind. But might not recognition of this

difference remove at the same time the imperfection which Mr. Temple declares to infect all Science? May not the conception of a completed Science lead (as Kant thought), to the "regulative Idea" of God directly and not by the round-about path through the consideration of Art and the way in which Art "supplements" the alleged imperfections of Science? With Mr. Temple's account of the experience of aesthetic enjoyment, and his insistence on the value of the "eternal moment" I am so wholly in sympathy that I can do little more than thank him for his admirable statement, a statement, to my mind, far superior to the confused utterances of M. Croce upon which he modestly professes to base it. It is only here and there, in quite minor matters, that I find it difficult to follow him. I feel sure, for example, that he is wrong in saying of the "eternal moment" of contemplation that it is "timeless". He cannot really mean that we are not conscious of before and after in our experience when we listen, e.g., with understanding and delight to a fine performance of a Beethoven symphony; he must mean no more than that in this necessarily successive experience, the before and the after are before and after within what comes to us as one present. The experience as a whole is *one* experience though it is the experience of the successive. We *feel* the later phases of a movement presaged in and growing out of the earlier. But to say that the experience has "no duration" is to open the way for a complete misconception of the relation of the temporal to the eternal. Nor again do I think Mr. Temple altogether justified in the ingenious reasons he discovers for approving of the Greek tragedians for adopting "well-known tales" as the basis of their tragedies. Were the tales always well-known? Aristotle, who ought to know, says they often were not, and it is not on the face of it a plausible theory that an Athenian audience was, e.g., already familiar with the local legends of Pherae when it assembled to see the *Alcestis*. It may be an accident, but so far as I know, the only reference to the tales about Admetus in extant Greek literature before the date of Euripides' play, is Pindar's passing allusion to the hospitality of Admetus as proverbial. Also, as Mr. Temple has occasion to illustrate his theories by a long quotation from *The Cloud* it might have been well—as a corrective to exaggerated views about the antithesis between Art and Science—to point out that in the very finest stanzas of the poem the material out of which Shelley is building up his lyric is not immediate sense-perceptions but a scientific theory of the formation of clouds.

Equally, if not more, admirable is the discussion of the meaning and value of the tragical element in life,—if only Mr. Temple could have kept clear of the disturbing influence of Hegel's arbitrary dictum about the "conflict of rights" as necessary for a tragic situation. I am sure from the excellence of most of the chapter on tragedy that Mr. Temple really appreciates great drama much better than Hegel did, and I should prefer to hear him speaking only with his own untutored voice. No impartial student of

Sophocles can well acquiesce in the revolting view, which he repeats after the German, that the poet meant Creon in the *Antigone* to be expounding a duty against which Antigone has sinned. Sophocles not only guards himself against such misinterpretation by insisting on the divine authority of the "unwritten law" to which Antigone sacrifices her life, but goes out of his way to make his meaning the plainer by giving Creon all the qualities which were supposed to be typical of the tyrant. And where, we may ask, is the "divided right" in such plays as—*pace* Mr. Temple, *King Oedipus*, *Philoctetes*, *Hecuba*, *Hippolytus*, *The Women of Troy*, and in fact most of the most famous of the Athenian tragedies? Mr. Temple finds it in the Oresteian trilogy, but only by misreading into Aeschylus an anthropological intention which is the invention, and the demonstrably mistaken invention, not of the poet but of Prof. Ridgeway. He even allows himself to misunderstand Shakespeare in order to find the "divided right" in *Macbeth* and *King Lear* and *Othello*. It pains me to see a man who can, when he chooses, write so well of great literature as Mr. Temple, falling into the blunders of calling *Othello* "jealous," arguing that the agonising end of *Lear* is a retribution for the sins of Cordelia and talking nonsense about the legitimate ambition of Macbeth. Othello's error was not the mean vice of jealousy; it was rather that he aimed at being God's justice without God's omniscience; as for *Lear*, surely it is obvious that the main *motif* of the tragedy is not "divided right" but the everlasting thanklessness of the younger generation. The true motto for the play is simply "I have brought up children and they have rebelled against me". So far as Cordelia has to be put in the wrong to make her fate tolerable, her fault is not, as Tolstoy and Mr. Temple would have us believe, that she would not fawn like her sisters, but that in her devotion to her father she brought the "plumed slayer" into the land, and even of that Shakespeare does not seem to intend us to think more than once and in passing. Similarly in the *Hecuba* and *Women of Troy* it is plain that Euripides means to leave us with a profound sense of the cruelty and above all the stupidity of conquerors. He does not intend to send us away saying "But, after all, these Trojans had received and entertained an eloping wife". That is why in the *Hecuba* it is a capital point to exhibit the generalissimo of the conquering army, at the very moment of its triumph, as a poor creature who means not unkindly but is all the while so much the mere puppet of the armed mob he is supposed to command that everything he does only leads to horrors which are personally distressing to him and above all merely futile, mere acts of "war-frightfulness". We should go not to the *a priori* speculations of a meta-physician who does not seem to have had any special qualifications to act as an exponent of Art, but to the works of the great artists themselves to find out what tragedy is. If we do this, I think we shall not be long in discovering that the clash of "rights" is not the only feature in human life which the great dramatists find

tragie. "I opened the sea before thee, and thou hast opened my side with a spear; I went before thee in a column of cloud, and thou hast led me to Pilate's judgment-seat; I fed thee with manna in the desert, and thou hast smitten me with buffetings and scourgings." There is surely the essence of tragedy, but where is the divided right? Mr. Temple thinks *Hamlet*, by comparison with the other great Shakespearian tragedies, almost a prentice effort because, as he rightly sees, Hegel's formula will not readily apply to it. This is at any rate an improvement on the monstrous interpretation which finds in the ruffianism of Laertes an indication of what Hamlet should have done and suffers for not doing. But the mere fact that one is driven to such a device if one really means to defend Hegel's dictum suggests that the fault does not lie so much with Shakespeare's play as with Hegel's theory.

Considerations of space compel me now to proceed, though I feel I have still much to say in behalf of that same Shakespeare, to Mr. Temple's treatment of the moral life (Bk. I., Pt. III., *Conduct*). I need hardly say that I am wholly in agreement, as I imagine most readers must be, with the general account, so admirably given in the chapter on *Will and Purpose* of the formation of character out of the raw material of native endowment and dispositions, a piece of analysis which shows to what good purpose Mr. Temple has sat at the feet of Plato and Aristotle. In particular I am delighted with his strictures on the folly and criminality of much of the current nonsense about eliminating every element of discipline in enforced attention from the education of children. That it is doing a very bad service to a child to abolish the difference between "lessons" and "play" for him ought to be obvious to the average intelligence. Unfortunately it is apparently not obvious, and so we get the educational tragedy of our American cousins, who spend more on education than any nation in the world, with the result that the average American is perhaps the most crassly ignorant of all civilised men, and that even the academic class are behind their *confrères* elsewhere in the great characteristic of a real education, knowing when you do not know a subject. Nor do I think it easy to put a fundamental point in moral philosophy better than Mr. Temple puts it when he says (p. 174) that "the more complete our Personality, so much the more will the Future preponderate over the Past in our interest". Yet even here Mr. Temple cannot resist the temptation to exhibit touches of philosophical sectarianism. He must have his fling at the harmless use of the word "faculties" in Psychology, though no psychologist can escape the employment of some synonymous term, and the "faculty psychologist" of our Hegelian writers is a mere man of straw of their own invention. Or again he must declare that it is "vital to the significance" of *Macbeth* that the hero does not know that "the murder of Duncan will be the death of his own soul". Yet I seem to remember some weighty remarks about "the deep damnation of his taking-

off," and the "judgment here" that must be faced even by one who is prepared to "jump the world to come"; but I should have thought that the most tragic thing in human existence is the fact that a soul which has had life and death set plainly before it *can* and does choose death with open eyes. If a moralist denies this, is he not still at heart a victim of the Determinist fallacy?

With the chapter on *Good and Moral Good* we find ourselves in the very thick of a controversy which is to my own mind of supreme importance. For Mr. Temple, like all Anglo-Hegelians, is anxious to exalt the "State" at the cost of the individual, and follows the usual line of insisting that all obligation is social obligation. All "duty" is "duty to our fellow-men," and there are no duties to ourselves which are not duties to some determinate person or persons other than ourselves. Mr. Temple is unusually emphatic on this point. If there were only one conscious being in existence, he says, that being would be under no obligations at all. We only use the phrase "you owe it to yourself" when "a man has earned some reward which he is foregoing—and then we do not regard it as his duty to take it, but only as a right the waiving of which is morally admirable rather than evil" (p. 181). Or else, as when we say that a jaded man owes it to himself to take a holiday, we mean that he should do so with a view to producing better work afterwards, and to do that is primarily a duty to society. "Duty is a term never applied strictly to the isolated individual" (p. 182). "The Atheistic Debauchee upon a Desert Island is not liable to moral censure" (*ibid.*).

Now some of these assertions seem to me obviously false, and others irrelevant to the issue, and as I hold the question to be one of first-rate practical importance, I may perhaps be allowed to set out my grounds for dissatisfaction in some detail.

To begin with, I think the atheistic Robinson Crusoe, who has figured before in Hegelianising works on morals, may be dismissed. In the first place, Mr. Temple, of course, holds that this atheist is believing falsely in thinking that there is no God. Does he mean then that Robinson Crusoe is discharged from the obligation not to drink himself to death on his rum, and that the *instus index ultioris* will hold him guiltless because he falsely thinks that there is no God? If he does, he is making the tremendous assumption that a man can discharge himself from his obligations—and surely if there is a God in whose image Crusoe is made, he owes it to this God not to defile that image—by merely refusing or failing to recognise them, and I would refer him to Mr. Bradley's criticisms of J. S. Mill for a trenchant assault on the morality of his doctrine. Or does he only mean that if the atheistic Crusoe were right in being an atheist (as he is not), he would be under no moral obligations? If this is, as I presume it is, Mr. Temple's meaning, I would urge the considerations (1) that the method of "false hypothesis" in Ethics, as elsewhere,

is at least no infallible guide to true conclusions. It is a strange assumption that we can reach true conclusions about what is real by simply deducing results from what we know, or think we know, to be false. Of course, according to Christian belief, if God did not exist, Crusoe would not exist either, and a non-existent Crusoe has no obligations. But this does not show that the Crusoe who does exist on his island has none. (2) Mr. Temple himself asserts that his isolated atheist may be "wise or foolish". That is, he may believe truly or he may believe falsely. Then why may he not equally act rightly or act wrongly, especially as some of his beliefs may be beliefs about right and wrong? *E.g.*, the atheistic Crusoe believes "The best course for me is to drink myself to death," and apparently Mr. Temple would grant that this may be a false belief. Then why, if Crusoe acts upon it, are we forbidden to call his acts wrong? It seems very arbitrary to hold that one does not get rid of the difference between truth and falsehood by being stranded on a desert island, but does get rid of the distinction between right and wrong. If Mr. Temple would try to assign a reason for making this distinction I think he would find that his reason would turn out to be that all duties are duties to some one other than the agent, and then his *argument* is no more than a *petitio principii*.

The plea of this intruding atheistic Crusoe to be made a party to the suit being now dismissed, we may proceed to consider Mr. Temple's case on its merits. He has really two arguments, one which bears directly on the issue, and a second which is offered in rebuttal of a possible rejoinder. The one real argument is that it is only by life as members of a community that we learn to recognise obligations. This is true, and as against any one foolish enough to suggest that society has nothing to do with the moral life would be an adequate retort. But what persons like myself deny is not that society is an indispensable instrument for the acquisition of moral personality. We deny that all the obligations recognised in an adequate morality are obligations to "society" or to members of it other than ourselves. Against us, the eloquence displayed by Hegelian moralists when they dwell on social education as the great instrument in moralising the individual is simply irrelevant. What you have to establish against us is that those who moulded our character in our early years never inculcated duties to self as equally important with duty to others. And this brings me to Mr. Temple's argument in rebuttal. To it my reply is that he has simply given a false account of the facts.

It is simply not true to say that when we speak of duties owed to ourselves we mean either "rewards" which it is on the whole more admirable to decline or else duties which are primarily *not* duties to ourselves. *E.g.*, if I say that even Crusoe on his island owed it to himself—and I think most moralists would say this—not to "make a hog of himself," and that even the "atheist" is

capable of seeing this to be true, I do not mean that "being a hog" is a "reward" which Crusoe does well to refuse, nor yet that it is his duty to "society" not to be a "hog," since the hypothesis assumes that Crusoe is not, so far as I know, to escape from that island, and it will not matter to "society" what he does there. Mr. Temple is apparently intending to meet this reply when he throws out the suggestion that this duty may be owed to God and that God and Crusoe are a society of two. But *why* should Crusoe be supposed to owe the duty of decency to God? Surely not on the ground, so fatal to all real morality, that decency is an arbitrary command of God, but on the ground that what God wills—*i.e.*, that Crusoe shall behave like a decent man—is intrinsically good. And in that case it is Crusoe's duty to aim at this good irrespective of any question whether any one but himself will be the better for his doing so. Whether Mr. Temple recognises it or not, that is what I, for instance, mean when I say that Crusoe owes the duty to himself, and I cannot see that any of Mr. Temple's arguments affect my position. And the difference between us is no disagreement in mere theory. Mr. Temple, like the majority of the school with which he has so much sympathy, is led by his arbitrary refusal to admit any but "social duties" to laying down the practical rule that one should "make the world a better place, even if you have to do dirty work in the process" (p. 193). The context shows that the "dirty work" means what one knows to be sin. The counsel is to make the world better by doing known wrong. (Mr. Temple does not even contend that in certain cases what would be "dirty work" in most situations ceases to be "dirty" if you take the whole situation into account, like destroying a beautiful building as a necessity in a righteous war.) This was the advice given by that eminent divine Satan to Our Lord, and comes badly from a professed Christian theologian. Do we ever make the world "better" by stooping to deliberate moral degradation? Let me suppose an example of a kind discussed by casuists and by no means unknown in actual life. A decent Christian wife has to choose between making herself a partner in the lewd pleasures of her husband and breaking up the family life. If a woman placed in this distressing dilemma applied to Mr. Temple, as an authorised minister of the Church, for direction, is he sure that he would be doing right in giving the advice indicated by the formula I have quoted? Is he sure, even, that the formula does not amount to denying that "moral good" is intrinsically good at all, and that he is not tacitly thinking of "making the world *better*" in a purely non-moral sense of the word "better"? To any one who holds that *some* habitual states of will and temper are either the most valuable or among the most valuable of intrinsic goods it is impossible to think in this light fashion of bettering the world by degrading one's own character. I have not much sympathy with the attitude of even the most honest of our present "conscientious

objectors," because I think their "consciences" curiously unenlightened, but the temper displayed towards the little minority in this matter by the Northcliffe newspapers and the ignorant crowd who take their opinions from my Lord Northcliffe and his puppets leads me to think with Lord Hugh Cecil that society, at the present moment, needs no warning against over-conscientiousness, but rather the reverse. We are in serious danger of relapsing into the mob persecution and possibly the legal persecution of minorities who refuse to regard the commands of a legislature which is rapidly sinking into the condition of a mere board for registering the decrees of a ring of unscrupulous financiers and press-men, as the ultimate authority in morals, and a moral philosophy like Mr. Temple's is only helping to bring the danger nearer. (Perhaps I should explain that I am referring not to the proposal to disfranchise the "C.O.," which seems to me defensible and reasonable as a measure taken in the interests of national security, but to the attempts of the newspapers to which I have referred to arouse the spirit of intolerance by representing *every* "objector" as a hypocritical coward, and the hardly-veiled incitements in some quarters to downright mob-violence.) While actual "society" remains in matters of conduct what it too often shows itself to be, a mere blustering bully, it is good for society itself that some persons should refuse to fall down and worship.

We are on less debatable ground in the discussion of the moral criterion (c. 16). Though even here I feel that Mr. Temple is scarcely sufficiently careful to safeguard some of his views by necessary restrictions. *E.g.*, he seems to hold that an ideally good man is one who is "capable of happiness only in so far as he is conferring it" (p. 205). No doubt it is true that the better a man is the more does he find happiness in conferring it. But can it really be held that the best man is only capable of feeling happy when he is making some one else happy? Would Mr. Temple regard as ideally good a man who got no happiness from the reading of Plato or Browning (unless he were reading them to some one else)? Or would he deny—I should not deny it myself—that a good man might feel happy in performing an unpopular act of justice which made no one else much the happier and many men unhappier? Or again, is it really true that "to understand, when used of other human beings *always* means to "sympathise" (p. 206)? I do not think that to "understand" an Iago would mean "to sympathise". I think the clearer our understanding of such a man, the less would be our "sympathy". Is it not proverbial that hate can show as deep an insight as love?

A more serious criticism, affecting the whole chapter, is that though Mr. Temple has said many true and striking things in it about differences of moral standard, he does not seem to offer any satisfactory answer to the question he is supposed to be discussing. He does not give us a satisfactory mark by which right acts can be distinguished from wrong ones. In my own opinion no "criterion"

in this sense is possible for the simple reason that there seems to be nothing which is a universal and exclusive characteristic of right acts other than their rightness itself. To ask for some mark, other than their rightness, by which you may recognise right acts whenever you meet them is like asking for some mark, other than truth, by which you may be sure of recognising a true proposition. Mr. Temple merely falls back on the theory that all duties are social, and observes that we may thus make social utility a criterion. What is necessary to the existence of any and every society is a duty for every man; what serves the society of which I am a member is a duty for me (p. 211).

I do not feel that this utterance helps us very much. What is "*the society of which I am a member?*" Mr. Temple says that for an Englishman it is "England". But suppose the interests of England are not wholly identical with those of the United Kingdom, or of the British Dominions, or of civilised humanity? And who is to judge when there really is such a conflict of interests? Or again, if I am a Christian as well as an Englishman, is *the* society to which I must be loyal at all costs "England" or the Catholic Church (however I understand that designation)? Or is a Socialist's first duty to his country or to the *Internationale*? These are real and urgent practical questions, and it is specially imperative on moralists who preach loyalty to my "society" as the whole of duty to answer them. Even if all duty is a matter of giving to Caesar that which is Caesar's, who is *my* Caesar? Mr. Temple declares for rebellion if necessary when the institutions of a social group militate against the good of its own members,—but what of the case where they seem to militate against the good of other social groups? Newman once wrote that it would be better that the whole human race should expire in the most exquisite torments than that one soul should commit one wilful sin. I do not ask here whether Mr. Temple would subscribe to this doctrine, but surely the fact that it can be and is held shows that Mr. Temple's criterion would not in practice assist us much in making really difficult moral decisions.

In the following chapter on *Liberty* Mr. Temple gives an excellent description of the true Liberty which does not mean absence of Law but Life regulated by a Law which expresses the true and abiding will of the good citizen as contrasted with his passing impulses. Yet I think he is hampered in saying what he really means by an undue deference to "democratic" prejudice. He is really evading what to the "democratic" man seems a serious difficulty when he more than once insists that it is of the essence of a law to be a rule which its makers have agreed to lay down beforehand for the regulation of the conduct of each of them. The "democratic" man—or very often it is the "democratic" woman—will retort that the makers of laws insist on treating them as rules laid down to direct not only their *own* future conduct, but that of the millions who have never been consulted at all, and the more numerous

millions of their descendants. I do not think anything is gained in Ethics by clinging to some last remnant of the old fiction that law owes its claim to respect to unanimous consent. A bad law might be carried without a dissentient voice, and I do not think any respectable moralist likely to approve of the position of some of our wild women, that they are not bound, *e.g.*, by the laws against arson, because their consent was never asked to them. A law is binding in the last resort because what it commands is right, what it condemns wrong, and acts are not made right or wrong by winning or failing to win the suffrages of the "many". It would have been better to dwell, with Prof. Bosanquet, on the thought that the real purpose of laws is direction, not coercion, without introducing the "democratic" fiction. After all, there is no inherent sanctity about the "compact majority". Democracy is only one among other forms of government, and it cannot be said to be proved that it is the best form. If we think it is, we can only justify our opinion by urging that the heart of the "plain man" is more likely to be in the right place than that of any specially selected "superior" class. Even this is an unproved assumption, and if it is granted, it still remains a further question how far the head of the plain man can be trusted to devise legislation which corresponds in its working to the desires of his excellent heart.

I find it curious, too, that Mr. Temple should offer such a remedy as he does for disaffection to the Law on the part of a section of the public which believes itself to have been wronged in the past. He suggests that the oppressor shall make things right by voluntarily allowing the oppressed to oppress him in turn. Thus he actually proposes to reconcile the recalcitrant Irishman who cannot forget the old financial wrongs of his people by allowing the Irish in the future to tax the English at their pleasure without having to render any account. I cannot believe that one wrong can be made to remedy another in this easy manner. In the particular instance chosen by Mr. Temple, not only would you create an English ill-will towards Ireland in addition to the old Irish ill-will to England, you would also do the Irishman no service by teaching him to be the one thing that is worse than a slave,—a slave-driver. If Mr. Temple were not so obviously in earnest, I should have fancied he had evolved this theory out of the cynical saying that what a slave wants more than anything in the world is not to be free but to have a slave of his own. So I think the remarks about Capital and Labour on page 222 imply a hasty adoption of Syndicalist errors which would be certain to be disavowed by the most responsible and serious champions of the Labour movement itself. But I am glad to see on page 225 an explicit recognition of duties which "transcend all earthly loyalties," though I find it hard to reconcile the recognition with the declarations of the chapter on *Good and Moral Good*. In the later chapter Mr. Temple says, and says well, exactly what seems to me the right thing about the "conscientious" law-breaker. You must, if after careful and modest search for

moral truth you are personally convinced that obedience would be sin, break the law, but you cannot claim to be exempted from the penalties which the State, in the exercise of its conscience, enjoins for the breach. Martyrdom, as Johnson said, is the only test, and even martyrdom is a fallible one, since error has its martyrs as well as truth.

As one would expect, Mr. Temple's chapter on Education contains not only an admirable exposition of those fine ideals which were really implied in the old phrase, so distasteful to our "hustling" age about the education of a scholar and a gentleman, but also a goodly number of very interesting practical suggestions which I commend to all those who are in any way concerned with teaching, especially teaching in secondary schools. Whether all these suggestions approve themselves equally to all or not, Mr. Temple has at least succeeded in this chapter in discussing the elementary practical problems of the modern educator in direct connexion with the great spiritual ideal of the earlier books of the *Republic*. I commend particularly his very interesting remarks about the degree to which the "Public School" system of England embodies Plato's conceptions and the reasons why it falls short just where it does. In passing I must, however, utter a word of protest against the accusation that "we—sc. the English—have as a nation practically no regard for Truth," and that in this we must seek the source of all our mistakes about educational matters. The context shows that Mr. Temple only means that many Englishmen believe false propositions because they are biased in favour of views held by their own class, or are almost inevitably ignorant of facts about the life and aspirations of classes other than their own.

I take it that this is a simple case of *humanum est errare*, and I would respectfully urge on Mr. Temple that it is also a case of *de te fabula*. Mr. Temple has in this very volume affirmed very confidently propositions about logic which I feel sure are false, and I think the reason why he seems to have affirmed them so confidently is just that he has taken them on trust and without examination because they are "prejudices" or "commonplaces" of a social group of Oxford tutors. But I should not feel justified in charging him on this ground with having "practically no regard for Truth," and I would entreat him to be a little less inconsiderate in the charges he brings against his fellow-sinners. If one may without being offensive recommend a divine to consult his own Scriptures, I would remind Mr. Temple of the moral of the parable of the two debtors.

The first book reaches its climax, of course, with the section devoted to Religion, a section almost wholly given up to the consideration of the Problem of Evil. If God—*i.e.*, the absolutely perfect Being—exists, and if we can enter into direct relation with Him, then the ideals alike of Truth, Beauty, and Goodness are not merely real, but more real than anything else, and we can become

ourselves more and more full, in Plato's phrase, of "Being and Reality," as we come into closer and more constant relation with the All-wise, All-beautiful, and All-good. But does God exist? There is the plain and palpable fact that evil is intensely real as a feature both of our inner life and of the life of Nature. As Plato says, in the actual world there are "disorderly" as well as "orderly" motions. Here, as Mr. Temple holds, and I think rightly, is the problem of a "philosophy of Religion". If the All-good is more than a dream, how can evil be the enormously "live" thing we know it to be? The question, as Mr. Temple says, is no mere question of origins. The real trouble is not that we cannot say where evil came from, if there is a God, but that we find it so hard to say "what the good of" the existence of evil can be, and thus the undeniable reality of Evil seems to forbid us to hope for any teleological vindication of the actual.

The chapter in which Mr. Temple deals with this difficulty seems to me perhaps the very best in his volume. So far as moral evil is concerned, the question is of course Man Friday's old difficulty, "Why God not kill the Devil?" and I fully agree, as against what seems to me the superficial objection of Dr. McTaggart, with Mr. Temple's rejoinder that the victory of good over evil is itself at least one of the greatest goods, and that this good would be impossible in a world where there was no evil to be overcome. I agree also with him in his inability to follow the Dean of Carlisle by falling back on the notion of a "finite Deity," if the phrase really means anything. For a "finite Deity" may be after all not so much more powerful than ourselves, and His and our determination to triumph over evil may, for all we know, be doomed to pitiable failure. It is not to a "finite" God that we could trust for "grace to help in time of need," since we could never tell whether our own present need might not be the critical moment in which, so to say, the bank of Heaven was at last called on to meet a liability greater than its assets. If we are to have a religion which will really work, we shall need to make an act of faith, and the faith must be adequate to all emergencies. I think it is a pity that Mr. Temple should have thought it necessary to his argument at this point to entangle himself in the question about the endlessness of the temporal series. He pronounces himself on the side of the view that the overcoming of evil by good must be regarded as a process which is always going on, never began and never will end. As he rightly says there is no internal absurdity in the notion of such a series, unterminated in both directions, nor would it be a mere monotonous repetition of the *status quo*, since we may hold that "in every epoch the struggle is at a higher level than before".

But it is equally true that there is no absurdity in the view that an infinite series has a first or a last term or both. Thus, e.g., the series of rational fractions not greater than 1 has no first term, but has a last, viz., $1/1$, the series of such fractions not less than $1/3$

has a first term but not a last, the series of rational fractions not less than $1/3$ and not greater than 1 has both a first and a last term, though all these are infinite series. As to the series of successive moments of time, I do not see that we have any grounds in philosophy for either asserting or denying that it has a first (or last) term. Mr. Temple is certainly wrong in saying that to think of the world as having a beginning implies a belief in a preceding "empty time"; it only implies a belief in a first moment of time. Hence I see no difficulty in believing that the historical order has emerged—as most Christians believe—from the supra-temporal and will return again to the supra-temporal. Mr. Temple might at any rate consider the worth of the arguments by which Varisco has tried to show that Theism *necessarily* carries with it the belief in a first moment.

Nor should I have thought Mr. Temple called on to deal seriously with what strikes me as the frivolous objection of Mr. Joachim to the belief in Divine omniscience. I gather that Mr. Temple is not quite satisfied with his own treatment of this "difficulty". I think he might have disposed of it very simply by denying Mr. Joachim's assumption that a mind can only know what it experiences. He might surely have said that God can know about my false beliefs without Himself believing falsehoods, just as I can know that Mr. Joachim believes a thing without believing it myself. This is, at any rate, the general line followed by the great Scholastics in their discussion of the problem, and it seems to me as rational as it is obvious. Apart from one or two paragraphs where Mr. Temple seems to me to stray off the subject for the mere pleasure of introducing certain favourite logical theories, his whole treatment of the place of moral and physical evil in the world strikes me as masterly. It is simply true, as he says that "love requires beings whom it may love, and requires their varying forms of evil for the perfecting of love. . . . Yet the victory is not that of force but of tenderness" (p. 290).

With the culmination of the discussion of evil in the formulation of this doctrine the strictly philosophical part of Mr. Temple's book comes to a conclusion. In what remains (Bk. II., *God's Act*) we are concerned with the historical and theological significance of Jesus Christ as the personal author and founder of a Church based on the principle of the conquest of evil by loving wisdom, and the advent of Christianity just at the time when Hebrew piety, Greek wisdom, and Roman political sagacity had made the world ripe for His appearance. In the comparatively few pages devoted to the account of this *Praeparatio evangelica* we are of course on familiar ground, and I would make no remark upon them except that Mr. Temple's account occasionally takes for granted points of detail which may reasonably be regarded as open to controversy. Thus it may fairly be doubted, in view of much Old Testament narrative, whether the God of Sinai was really regarded until a very late date as a deity to be worshipped "in complete detachment from all

licentious rites". Mr. Temple should re-read the story of the way in which the worship at Shiloh was conducted by the sons of Eli and ponder on what Prof. Kennett has written in his article *Israel* (*Hastings' Encyclopaedia of Religion and Ethics*) about the *q'deshim*, who are said to have existed in the Temple worship of Jerusalem down to the time of Josiah. It might also be doubted whether the notion of the God of Israel as bound to his people by a covenant is not a much later thing than Mr. Temple assumes, and whether on its first emergence this idea involved any notion of the connexion between God and people as based on "moral" relations. And again, does the Alexandrian blend of Mosaic Law with Platonised Stoicism contain any "Messianic" factor, as is taken for granted on page 310? These are, however, at the most very minor blemishes. I do not propose in the pages of MIND to enter upon an elaborate discussion of the chapters in which Mr. Temple expounds his own views of the living meaning of the main doctrines of Christianity. MIND is hardly the appropriate place for such a discussion even if I were not as well aware as I am that my own qualifications for conducting it are so slight. I can only express my own warm personal sympathy with Mr. Temple's general position and my own appreciation of the skill with which he expounds it. I may be allowed to say how much pleasure it gives me that Mr. Temple will not hear of an "attenuated Christianity" which has lost its hold of the historical and converts Christ and the Church into mere "ideas". I am quite of one mind with him in the view that the value of Christianity to mankind depends on the truth of the conviction that the perfect union of Divinity and Humanity has taken place as a fact of history, and in the person of Jesus the Son of Mary, not in that e.g. of Plato or Augustus or Alexander. Any wavering on this fundamental point means the abandonment of the specifically Christian conception of God, the conception which allows you to say *Christi est, ergo Dei est*. The mere fact that Hegel, for instance, could fancy that he was expressing what Christians believe about their Master by saying that the fundamental fact about the Church is its belief that the union of God and Man had been achieved in a certain historical person, is enough to show that Hegel was no Christian, nor a colourable imitation of one. From the point of view of real Christianity the really important questions are just those which Hegel ignores, what manner of man was this "historical person," and was what His followers believed about Him true? Did He really conquer the "last enemy" or was He only supposed by credulous peasants to have done so? There is so much "liberal Christianity" in our own days which is "liberal" without being Christian that Mr. Temple's explicit repudiation of it is peculiarly seasonable. I hope it will not be taken as any derogation from my admiration of Mr. Temple that I am forced to wish he had not used some of the language he has allowed himself on page 315. It is a very timely thing to have uttered a protest against the conception of Our Lord's

character which underlies the French phrases about *le doux Jésus*. Jesus was, as Mr. Temple says, no sentimentalist; no man ever made higher claims or exacted more from His followers. But Mr. Temple, as I think, goes to an unjustifiable extent in the other direction. When he depicts Jesus as a person to whom none of His followers could venture to offer advice without being withered to earth for their audacity, he seems to me to be ascribing to Him the quality of a *poseur* and charlatan. I do not for a moment believe that He was a stickler for His "dignity". And in the case to which Mr. Temple refers, St. Peter was rebuked not so much for offering advice as for the quality of the advice he offered.

I might also suggest a doubt whether the conception of the *λόγος* has anything to do with the Old Testament prophetic expression "the word of the Lord," which, as Mr. Temple of course knows, is in Greek always *ῥῆμα κυρίου*.

And at page 365, where Mr. Temple is essaying the dangerous task of explaining the doctrine of the Trinity, I cannot help suspecting that his explanation is hardly orthodox. Is it really sound Christian theology to say that the activity of the Father is in Eternity but that of the Son and Spirit in Time? I am sure at least that Mr. Temple unconsciously perverts the meaning of the passage he quotes from St. Thomas. St. Thomas says, as Mr. Temple will see on looking up the context, that "if the Holy Spirit did not proceed from the Son, He could not be personally distinguishable from the Son". This is an argument against the Greek doctrine of the "single procession," and the point is that we know *antecedently* that the Spirit is personally distinguishable from the Son, and as this could not be, but for the relation of "procession," we may conclude that the Spirit proceeds from the Son. The "personal distinction" is one of the *premisses* of St. Thomas's syllogism; Mr. Temple makes it the conclusion, "the Spirit is only distinguishable from the Son because of His proceeding from Him". He converts what in St. Thomas is a *ratio cognoscendi* into a *ratio essendi*.

A. E. TAYLOR.

Problems of the Self: an Essay based on the Shaw Lectures given in the University of Edinburgh, March, 1914. JOHN LAIRD. Macmillan & Co. Pp. xiii + 375.

THE substance of this acute and learned work was delivered shortly before the war, and its publication only increases one's longing to return as soon as possible from the present madness to the sensible employments of those days.

I shall endeavour to give a synopsis of Prof. Laird's book and then to criticise certain points which seem to me both important and doubtful.

To inquire into the nature of the self we must begin by discussing experiences; it is only when we have done this that we can tell whether they and their relations suffice to constitute a self or whether some further constituent be essential. Experiences are the subject-matter of psychology, and, in the second chapter certain fundamental problems in the latter science are discussed. Among these are (i) the distinction between cognitive acts, universals, sense-data and physical objects. Of these the first are certainly experiences, the second and fourth are certainly not, whilst the third—though they are objects and not experiences—may be partly mind dependent. (ii) The nature and possibility of introspection are next discussed. The arguments against its possibility and trustworthiness are rejected on grounds which seem to me perfectly conclusive, and it is suggested that we may have direct knowledge of other men's minds. (iii) Introspection tells us that cognitive acts are acts of reference to objects and that they may differ in 'quality,' in the sense in which doubt differs from belief or supposition. (iv) The tripartite division is next discussed. As offered it seems to lack any definite *fundamentum divisionis*. Prof. Laird takes the view that all experiences refer to objects (though he admits to a slight doubt about feelings). He then divides these acts of reference into dynamic and adynamic. The latter are cognitions. The former are divisible into those in which the object is affected (Conations) and those in which the object affects the subject (Feelings). We may say that 'endeavour is guided by cognition and prompted by feeling.'

In the third chapter Prof. Laird discusses whether the body can be considered to be in any sense part of the self. He decides that it cannot, and tries to explain why it should seem plausible to hold that it is. In his view organic sensations are cognitive acts which tell us about certain states of our bodies. These states are objects and not experiences. Hence they are not parts of the self; but they have certain characteristics which make them easily confused with true feelings which are parts of the self. Our bodies may be essential to ourselves and they are our own in a special way, but this does not make them *parts of ourselves*.

In the next five chapters Prof. Laird discusses in turn the alleged primacy (a) of feeling, (b) of conation, and (c) of cognition over the other factors in mental life. His conclusion is that all are essential and none prior to the others. If feeling be a reference to an object it is no more private than any other experience. Nor is it relevant, even if true, to say that the self has developed out of a mass of feeling. This would only amount to a priority of feeling to the self, not to a priority of feeling *within* the self. And it is only plausible to say that the self develops out of mere feeling when you define feeling as that state of mind which is too vague to be classified under any other head. With this sense of feeling the priority of feeling is unimportant.

The fifth chapter begins with an analysis of activity. Prof. Laird concludes that it consists in initiation and novelty, which are not, however, independent of the past or of present conditions. There is no reason to deny that activity is a part cause of changes, but no reason to think that it is the only kind of cause in the world or even in the self. Chapter vi., which deals with the psychical and the purposive, discusses the arguments of neovitalists. Purpose is supposed to be a mark of life, hence of the self, hence to be the primary factor in the self. This is, as Prof. Laird points out, at best a *non sequitur*. Purpose too is most ambiguous. It may mean (*a*) conscious volition, or (*b*) explanation in terms of a system, or (*c*) value. The reason why the same name is applied to three such different things is that conscious volition leads to a system of means and ends which cannot be externally distinguished, and that such systems have value. It is impossible to prove that mechanism (in which Prof. Laird appears to include physics and chemistry) will not explain the phenomena of life. Even if it will not there is little reason to think that there is much conscious purpose even at the level of instinctive processes, and therefore still less to assume it in processes of growth and reproduction. All that is really needed to explain the facts is to suppose that some wholes are such that their parts act very differently when removed from them and placed in different surroundings. Hence there is no reason to see a psychical principle, still less a conational one, in the phenomena studied by the anatomist and physiologist.

The discussion of the alleged primacy of the will is concluded in a long chapter (vii.) where Kant's Practical Reason, Fichte's *Ich an Sich*, Schopenhauer's Will to Live, and Bergson's *Élan Vital* are described and criticised. Prof. Laird has naturally little difficulty in finding confusions in Schopenhauer; and his sympathetic treatment of Fichte, accompanied with long quotations, only persuades me more than ever that Fichte is as negligible as he was disagreeable. Whatever it be that Bergson takes as primitive it is *too* primitive, Prof. Laird holds, to be identified with conation rather than with any other side of developed mental life. As to Prof. Laird's views on Kant I shall have something to say of these later.

Chapter viii., on the Self as Knower, can hardly be said to deal with the alleged primacy of Cognition. This, Prof. Laird thinks, has been sufficiently refuted by the arguments of those who attempted (though vainly) to prove the primacy of feeling or conation. He therefore devotes the chapter to some problems connected with cognition. Experiences are parts of the self, and not qualities; for they are particulars and not universals. Moreover they are neither parts nor qualities of the body. The components of the self, on Prof. Laird's view, are thus acts, their 'qualities,' and their 'content,' but never their objects, even if these be mind-dependent. To the objection that this makes the self but a poor

thing, Prof. Laird replies (*a*) that this is the conclusion to which reflexion on the facts forces us, and (*b*) that 'contents'—in the sense of differences in acts correlated with differences in their objects—are probably necessary to explain association. They do supply a good deal of variety within the self, though they are not capable of being studied introspectively.

Lastly, there is nothing about *individual* cognitive acts to force us to assume a pure ego as knower. Lotze's arguments only suffice to refute presentationism, whilst Russell's much milder contention that, to understand the proposition I am aware of *x*, I must be acquainted with that of which *I* is the proper name, rests on a false analysis of cognition. My awareness of *x* is not a relation between me and *x*; the only relation is between my awareness and *x*. There is also nothing in the fact of self-cognition to show that any factor in the self is always doomed to be a subject and not an object.

Prof. Laird therefore concludes that *single* experiences will not force us to assume any factor in the self which is not an experience; it is possible, however, that the unity and continuity among our *various* experiences may require some new factor for its explanation. In chapter ix. he therefore discusses the Unity and Continuity of the Self. He holds that the unity of cognition varies *pari passu* with that of the cognised object and that corresponding unities of feeling and conation exist. But isolated strands of our mental life have much more internal unity than the self as a whole. Indeed, now that mere presentationism has been refuted, we can afford to admit that the unity of mental life tends to be exaggerated. Such unity as there is is doubtless in part dependent on external objects and on bodily sensations, but these are *conditions not component parts* of the unity.

The next question then is: What are the ontological conditions of the amount of unity that we find? This question is discussed, mainly with reference to retentiveness, in chapter x. Prof. Laird holds that it is improbable that retentiveness can depend solely on the brain. He accepts the view that we must grant the existence of subconsciousness, though he thinks that most of the arguments for it are weak and declines to extend its range very far or to expect it to perform miracles. Stumpf's argument he criticises on physiological grounds.

Chapter xi. contains an interesting discussion on three problems connected with multiple personality: (i) Do selves dissociate? (ii) Are the dissociated parts ever different selves? (iii) If so, are several selves ever coexistent in one body? He argues that, on any criterion of personal identity that we apply in ordinary life, (i) and (ii) must be answered in the affirmative, and that the same is probably true of (iii).

Chapter xii. contains a long, and to my mind, rather needless discussion of the history of the notion of substance since Descartes. In the thirteenth and last chapter we have Prof. Laird's own views

as to the sense in which the facts force us to consider the self a substance. A substance is a term which can be a subject, but not a predicate. But this is not sufficient. It must be a particular existent. A characteristic of existents (though not a definition) is that our knowledge of them involves sensation. An existent involves two factors, stuff and form. These are not capable of separate existence, and you cannot identify a substance with the former in abstraction from the latter. The unity and continuity of a substance are then discussed and it is argued that what counts as *one* substance varies according to the criterion used. This does not, however, render the notion arbitrary or subjective, because the fact that it is more convenient for one purpose to count a certain system as one and for another purpose to count it as many depends on the nature of the system and the sort of the universe and not on our subjective caprice. The self is *a* substance (and, in general, *one* substance) *par excellence*, if by this you mean a complex particular existent which for practically all purposes has to be treated as one and as inexplicable in terms of anything else. It differs from the body, but this does not prove that it can survive the body, still less that it is indestructible. Survival and immortality are possible, but the continued existence of a substance can only be established through the evidence of the senses, which is necessarily lacking in the case of a disembodied self.

This is the gist of Prof. Laird's book. Before going on to criticise certain points I must say that I am in hearty agreement with the greater part of it; that it is much the best book on the subjects treated in it that I have met; and that it would be difficult to praise too highly the skilful way in which the author has managed to deal with a huge mass of problems without ever obscuring the main trend of the argument.

The first question which I want to raise deals with the position of feeling and with the tripartite division. All experiences, according to the author, are references to objects. He is a little less certain with regard to feeling than with regard to cognition and conation, but he thinks that, when the confusion between true feelings and bodily sensation is removed, it will be clear that true feelings are acts of reference. Now of course this is clear enough with regard to anger *with* someone, joy *at* some news, and so on. But are all true feelings of this type? Are they all *directed* feelings? On the other hand, is it not possible that a directed feeling is in a certain sense analysable into a feeling and a cognition? It is noteworthy that Prof. Laird admits (what is undoubtedly true) that the direction of feeling and conation to objects is always to objects *as cognised*, though the cognition may be very vague. Again there seem to me to be undirected feelings such as general depression. We may have the experience of feeling ill-tempered and looking about for an object of our ill-temper. Now I suggest very diffidently that perhaps the tripartite division in general, and feeling in particular should be treated in a very different way from

Prof. Laird's. It seems to me that the one act that essentially refers to an object is cognition. I suggest that feelings are states of mind not analysable into act and object at all. But upon cognitions and feelings may be *founded* (in Meinong's sense) acts of a higher order in which there is a specific kind of relation between a feeling and a cognised object. These complex acts, built upon but not totally analysable into true feelings and cognitions, may be called directed feelings, or, as I should prefer to say, emotions. *E.g.*, the undirected feeling of ill-temper would normally be called a feeling and not an emotion; but the state of anger with Smith, built upon this feeling and a cognition of certain propositions about Smith, would be called an emotion directed towards Smith.

I am much inclined to think too that conations are acts of a higher order founded upon cognitions and a special class of feelings (in my sense), and that the characteristic of these acts is that a special kind of relation unites these feelings with the cognised object. If this be true there will be a primacy of cognition in a sense which Prof. Laird does not discuss. It will not be primary in the sense that other states of mind can be deduced from it, but in the sense that all states of mind that have objects and are not themselves cognitions are acts of a higher order founded upon cognitions.

I think Prof. Laird assumes too hastily that all states of mind must be analysable into act and object. Doubtless it is obvious enough that a sensation of red means a sensation whose *object is red*, and not a red sensation. This is because there seems a clear incompatibility between the subject—sensation—and the quality—red—which involves extension, shape, etc., in its subject. But there is no obvious incompatibility in saying that a sensation of toothache means a 'toothachy' sensation, and not a sensation whose object is toothache. Again, suppose that all sensations be analysable into act and sense-datum. It still remains possible that sense-data, which are admitted to be probably in part mind-dependent, may be states of mind of the nature of feelings. This, I understand to be Prof. Stout's view, and I should have been willing to forego a good deal of the discussion about people of the calibre of poor dear Fichte to have it fully criticised. Personally I find it almost as difficult to believe that a feeling can be red as that a sensation can be red; yet this difficulty does not seem to affect Stout, and I must admit that I cannot see clearly that *all* so-called sensations (*e.g.*, those of headache) *must* be or even *are* analysable into act and object. It seems to me quite possible that, when we describe sensations as states due to the stimulation of a nerve, we describe two different classes of mental states: (i) True sensations, *i.e.*, acts whose objects are sense-data, *e.g.*, sensation of red and (ii) Bodily feelings, *i.e.*, states not analysable with act and object, such as feeling of headache. And in addition the question would remain whether sense-data be themselves of the nature of bodily feelings.

It is to be noticed that even if bodily feelings be not true sensations there will remain a distinction between them and what Prof. Laird calls psychical feelings. The difference is that headache and toothache do not seem capable of entering into directed feelings; you cannot have an emotion of toothache towards Smith; whereas anger and fear can be and generally are constituents in emotions felt towards cognised objects.

Prof. Laird's view, however, is that bodily feelings are genuine sensations, that they are the awareness of special sense-data peculiarly connected with the states of our own bodies. This view seems to me possible, though from what has gone before it will be clear that I do not think that it is necessary or even highly probable. There really is a very important difference between toothache, if this be regarded as a sense-datum by means of which we perceive a state of our tooth, and a red sense-datum by means of which we perceive the colour of a physical object. Prof. Laird says that *all* sense-data are probably in part subjective; this is doubtless true, but it is believed that by their sensations of somewhat similar red sense-data different people perceive the *common* redness of a *common* physical object. But my sensation of toothache, however like my toothache may be to yours, only enables me to perceive the state of *my* tooth, whilst yours only enables you to perceive the state of *your* tooth. Thus, if toothaches be sense-data, they not only have in themselves the subjectivity of an ordinary sense-datum, but also, unlike other sense-data, they do not lead various people to the cognition of a neutral physical object and its qualities. The argument that doctors can learn as much about the states of our bodies from knowing our organic sensations as from looking at our tongues is irrelevant to prove that a headache is a sense-datum, for the doctor's conclusion from what we tell him is inferential, whilst the relation between judgments of perception and the sense-data on which they are founded is certainly not inferential, whatever it may be.

Lastly, even if a toothache or a headache be objects and not states of mind, I should suppose that their painfulness is mental and not bodily. Pleasure and pain seem to me not to be states of mind or of body but qualities of states of mind. If toothache and headache be feelings then they are mental and their painfulness is a quality of these feelings. If you divide the experience of toothache into an act and a sense-datum, then I should suppose that the painfulness must be a quality of the act and not of the object.

To pass to a different point. Mr. Laird makes the self to be a complex whose components are entirely acts, their qualities, and their content, but not their objects. And he says that the self is a substance and *one* substance *par excellence*. But surely a psychical act is a mere abstraction apart from an object. I do not merely mean by this that it is *causally* dependent on an object in the sense in which mind might be causally dependent

on brain, but that an act without an object is inconceivable. Now does not this make a self, which is conceived as a complex of acts, the merest abstraction and the very last thing to be regarded as a particular existent substance and the ideal example of substance?

Again I cannot see that Prof. Laird has produced the least evidence for his view that we have direct knowledge of other minds. The argument that we do not first notice that anger in us is accompanied by frowning and then infer that frowning in others is accompanied by anger seems to me true but irrelevant. No doubt we no more establish the existence and states of other minds by inference from their bodily actions than we establish the existence and properties of bodies in ordinary perception by inference from our sense-data. I should suppose that we start with an instinctive belief both in minds and bodies, and in general pass immediately from perceived gestures to judgments about states of mind, as we pass immediately from the awareness of sense-data to judgments about physical objects. It is only when someone questions our right to do this that we excogitate arguments based on analogy in the one case and on causation in the other. If then the absence of inference does not prove that we are directly aware of physical objects it will not prove that we are directly aware of other minds. I do not know exactly what Prof. Laird means to maintain when he says that we are directly aware of other minds. He might mean (a) that some of the states of other minds are direct objects of our own in the same way in which sense-data are and in a way in which physical objects and their qualities are probably not; or (b) that we have a special kind of sensations and that by means of the sense-data cognised in these we pass directly to judgments about the existence and qualities of other minds, just as we pass to judgments about the existence and qualities of physical objects directly from sense-data of sight, touch, etc. If the analogy with introspection is to hold he presumably means (a). Now either of these views is possible; but personally I cannot detect in myself a direct awareness of other men's states of mind or an awareness of a special kind of sense-datum through which I perceive other men's states of mind. I have thus no direct evidence in favour of Prof. Laird's view, and he does not suggest that he has any. And the facts do not, as I have tried to show, necessitate his view. I think it would be probably fair to say that we often perceive other men's states of mind, if by this you merely mean that our beliefs about them are not *reached* by inference, though possibly *defensible* by inference. But if you mean that they are direct objects of some of our cognitive acts, or that there is a special kind of sensation on which a perception of them is founded, then I should consider the statement baseless and probably false.

To turn to another question. I do not accept Russell's argument to prove that we must be acquainted with at least momentary selves, but I also do not accept Prof. Laird's refutation of it. The

fact admitted is that we understand such propositions as I am acquainted with x . Russell makes this a relational proposition of the form (I) (am acquainted with) (x). Laird makes it into (This acquaintance of mine) (is with) (x). At least this is how I understand him. On one analysis I must be acquainted with that whose proper name is I , on the other with that whose proper name is *This acquaintance of mine*. Russell's argument fails because it is mere dogmatism to assert that his is the right analysis, but Laird's counter-argument is merely the counter-dogmatism that acquaintance is not a relation.

I will now say something about Prof. Laird's statements as to practical and speculative reason. The question is: In what sense does reason determine a right act. Prof. Laird's argument on page 159 seems to come to this: Rightness of act = rationality of act; therefore being determined by its rightness = being determined by its rationality; and this = being determined by reason. The last step in this argument seems to be a *non sequitur*. It appears to me that three factors are involved: (i) the rationality of the act, which is a quality of it and would exist whether we had reason or not; (ii) reason, i.e., the faculty of our minds by which we recognise rationality in acts, coherence in arguments, and so on; (iii) the desire to do those acts which we judge rational and to believe those propositions which we judge to be true. Any of these factors might exist without the other two and it cannot be said that any one of them determines our act or our belief more than the rest. The truth is that we are not determined by reason in such acts in any more important sense than we are determined by sight in avoiding a puddle. In the latter case it would be far more in accord with ordinary language to say that we are determined by the wetness of the puddle, or by our dislike of getting wet. And in the former it would be more in accordance with ordinary language to say that we are determined by the rationality of the act, or by our desire to do what is rational. The truth of course is, as Prof. Laird admits, that there is no primacy of practical over speculative reason. Indeed the whole terminology is ridiculously misleading. There is a desire to do what is believed to be right, and this is operative in moral choice; and there is a desire to believe only what is seen to be coherent, and this is operative in speculation. There is also a power of recognising the formal characteristics of rightness and of logical coherence. This faculty may, if you like, be called reason. The two desires may be called a desire about practice and a desire about speculation. Reason, accompanied by the former, is practical reason; accompanied by the latter, speculative. There is clearly no question of priority between them; and, if there were, it would have no bearing on the primacy of conation over cognition, since both involve conation and cognition in precisely the same relation to each other.

Lastly, I must say a few words about the subconscious and

Laird's criticisms of Stumpf's argument. In discussing these subjects there are, I think, a number of distinctions which Prof. Laird might with advantage have drawn. (i) The distinction between dispositions (*e.g.*, badness of temper, etc.) and traces (the supposed permanent effects left by past experience). The former can hardly be called states of mind, they are qualities of the mind as explosiveness is a quality of dynamite. They may, of course, be dependent on some permanent state or structural peculiarity. But I cannot see the least reason to think that they are states in the same sense as a particular exhibition of temper is a state of mind. (ii) The question whether you can be aware of a sense-datum without at the same time being aware of all its parts, and the question whether you can be aware of it without being aware of all its qualities and relations. If a sense-datum be not counted as a state of mind then Stumpf's argument seems to have no bearing on the question of subconscious states of mind, for it deals with sense-data. If it be counted a state of mind then its parts will presumably be states of mind, but its qualities and relations will not. Now Stumpf's argument deals with the relation of identity and diversity between qualities of sense-data. Hence, whether the argument be true or false, and whether sense-data be or be not states of mind, it has no bearing on the question of subconscious states of mind.

Now I think that Stumpf's argument can be stated without the slightest reference either to physics or to physiology. There are series of sensations s_1, s_2, s_3 such that, if $\sigma_1, \sigma_2, \sigma_3$ be the corresponding sense-data, σ_1 is judged to be qualitatively identical with σ_2, σ_2 with σ_3 , and σ_1 is judged to be qualitatively different from σ_3 . As a mere matter of logic these three judgments cannot all be true. Hence we must either be judging qualitative identity when there is qualitative difference or conversely. Now the former is much the more probable error. Hence sense-data almost certainly may differ when we judge them to be identical in quality.¹

I must bring this long review to a close. It has been a delight to read a book occupied with psychological problems which avoids the 'havering' so characteristic of most psychological writings, and maintains a steady argument at the level which we expect in a good treatise on logic or the natural sciences. Prof. Laird maintains a standard almost as high as that which he seems to consider normal in maiden aunts, whose 'usual accomplishments,' he says on page 260, include the power 'to knit, to read a novel, and to engage in conversation simultaneously'.

¹ In fact there is nothing to prevent Stumpf from employing his argument in heaven to the angels, even if they have no bodies, provided only that they have sensations.

The Organisation of Thought, Educational and Scientific. By A. N. WHITEHEAD. London: Williams & Norgate, 1917. Pp. viii, 228. Price 6s. net.

THIS volume consists of eight chapters: seven of the chapters are reprints of addresses and papers originally delivered between 1912 and 1917, and the seventh chapter alone has not been published previously and deals with "The Anatomy of Some Scientific Ideas". The first five chapters deal with education, and the remaining three consist of discussions on certain points arising in the philosophy of science. "But a common line of reflexion extends through the whole and the two sections influence each other. . . . The various parts of the book were in fact composed with express reference to each other, so as to form one whole" (p. v).

Dr. Whitehead has written a book of the first importance. Not only is it of great suggestiveness to all who have to do with the teaching of logic and pure and applied mathematics, but it contains many of the author's recent contributions to the philosophy of science. In matters of education, Dr. Whitehead's occupation with the teaching of the technical aspects of science as well as with the purely logical aspects has resulted in a wide and deep sympathy with ideals and methods of education which do not make the student feel that education is unconnected with the most interesting parts of his life. It should be pointed out in this connexion that Dr. Whitehead hints (pp. 81-82) that the history of mathematics, where the word "history" does not denote merely a barren collection of names and dates, may perhaps play a leading part in the reforms he advocates. The two commandments in education are (p. 3): Do not teach too many subjects; and: What you teach, teach thoroughly; and the consequences of these maxims, which allow us to avoid the evil results which necessarily follow if we teach disconnected scraps of information, are developed with vigour and earnestness.

Dr. Whitehead's point of view is somewhat different from that of Plato. The essence of a liberal education, in Plato's ideal system, is an education for thought and æsthetic appreciation; the action which it contemplates is command, and it is an aristocratic education implying leisure. This Platonic ideal has encouraged art and has fostered that spirit of disinterested curiosity which is the origin of science (p. 34); and, in Plato's opinion, for a liberal education, geometry, as he knew it, is the queen of sciences (p. 95). But Plato did not include technical education in his scheme, and yet: "Disinterested scientific curiosity is a passion for an ordered intellectual vision of the connexion of events. But the goal of such curiosity is the marriage of action to thought. . . . No man of science wants merely to know. He acquires knowledge to appease his passion for discovery" (p. 37). And so we read: "The insistence in the Platonic culture on disinterested intellectual appreciation is a psychological error. Action and our implication in the

transition of events amid the [in]evitable bond of cause to effect are fundamental. An education which strives to divorce intellectual or æsthetic life from these fundamental facts carries with it the decadence of civilisation" (*ibid.*) ; "The antithesis between a technical and a liberal education is fallacious" (p. 38) ; and "An evil side of the Platonic culture has been its total neglect of technical education as an ingredient of the development of ideal human beings" (p. 41). It is a characteristic of this really great book that the importance of technical education by the side of logical education is emphasised, but it is appropriate, in the rest of this notice, to confine our attention to logical questions.

In mathematical education what we wish to arrive at is a clear grasp of general ideas. It is to be remembered in teaching that this grasp is not what the pupil starts from but is the goal at which he is to arrive (p. 96) ; "Mathematics is nothing else than the more complicated parts of the art of deductive reasoning, especially where it concerns number, quantity, and space" (p. 45 ; cf. p. 46). The educational merit of mathematics in strengthening the power of abstract thought is again pointed out on pages 93-94 ; indeed, "the fundamental mathematical truths concerning geometry, ratio, quantity, and number, satisfy these conditions as do no others" (p. 94), and hence one of the chapters (pp. 92-104) is devoted to the investigation of the place which should be occupied by modern investigations on the principles of mathematics in the education of schoolboys, even of those who require only a restricted mathematical education.

"Science," says Dr. Whitehead (p. 114), "is essentially logical. The nexus between its concepts is a logical nexus, and the grounds for its detailed assertions are logical grounds". Logic is disliked by most men of science because for hundreds of years it has been barren. This was the case because of worship of authority, and "a science which hesitates to forget its founders is lost" (p. 115) : Aristotle founded logic "by conceiving the idea of the form of a proposition and by conceiving deduction as taking place in virtue of the forms": he confined propositions to four forms, whereas modern logic has shown that there is an infinity of such forms. Another reason for distrust of logical theory is the mistaken belief that deduction can give us nothing new (p. 115). There is (pp. 116-126) an admirable sketch of modern logic, and there is (pp. 128-132 ; cf. pp. 156-178) an account of that great contribution of Dr. Whitehead to the logical principles of mathematics—the construction of "points" of space and time, and so on—described by Mr. Russell in his Lowell Lectures on *Our Knowledge of the External World as a Field for Scientific Method in Philosophy* (Chicago and London, 1914) and in Dr. Whitehead's article the *Revue de Métaphysique et de Morale* for May, 1916. There are also some very interesting passages on the relation of inductive logic, or the logic of discovery, to deductive logic, or the logic of the discovered (pp. 44-45, 107-108, 127-128, 132). Even

more original are the above mentioned seventh chapter and the eighth chapter. The seventh chapter discusses "the natural history of ideas and not volitions of scientists" to show that "there is a twofold scientific aim: (1) the production of theory which agrees with experience; and (2) the explanation of common-sense concepts of nature, at least in their main outlines" (p. 140), and deals with fact, objects, time and space, and fields of force. The eighth, on "Space, Time, and Relativity," was published in 1916 in the *Proceedings of the Aristotelian Society*, and brings into relation with each other the standpoints of mathematical physics, experimental psychology, metaphysics, and mathematics.

But, it may be asked, where is required any "organisation" of our thought in scientific teaching or scientific discovery? "Organisation," says Dr. Whitehead (p. 105), "is the adjustment of diverse elements so that their mutual relations may exhibit some predetermined quality," and goes on to explain that a good epic poem is a triumph of organisation and that science is a thought organisation of a certain definite type which he proceeds to determine. It seems, then, that "organisation" means the same as what Dr. Whitehead calls (p. 24) "the most austere of all mental qualities; . . . the sense for style". Indeed, this sense "is an aesthetic sense, based on admiration for the direct attainment of a foreseen end, simply and without waste. Style in art, style in literature, style in science, style in logic, style in practical execution have fundamentally the same aesthetic qualities, namely, attainment and restraint. . . . The administrator with a sense for style hates waste; the engineer with a sense for style economises his material; the artisan with a sense for style prefers good work. Style is the ultimate morality of mind" (pp. 24-25). Thus we see that what Dr. Whitehead understands by "organisation of thought" is one form of what is known as the "economy of thought". Mach, in his various writings, seems to have called several principles which are more or less allied by the one name of "the economy of thought," and it is evident that that form is emphasised by Dr. Whitehead which is closely akin to Occam's razor—which Mr. Russell has called "the supreme methodological principle".

The economy of thought, it seems to me, throws light on the "logic of discovery," which does not appear to be very clearly explained by Dr. Whitehead. It seems a misuse of the term "logic" to apply it to a method of discovery, just as it is a misuse of the term with politicians and ignorant people to speak of "the logical consequences" of a certain policy. The fact seems to be that we do not make use of deduction to any great extent in the process of discovering even logical conceptions. Take Cantor's conception of "continuity" for example: the most interesting point about this conception is that it seems to be the most precise conception we can devise to agree more or less with the vague images which are called up in the minds of some people by the word "continuity".

Discovery is carried on by such vague impulses and wishes; and it may quite possibly be a suspicion that logicians claim to have a "logic of discovery" that has led Henri Poincaré and many others to the mistaken idea that "intuition" is in some way opposed to, and a nobler thing than logic. The true place of logic in discovery seems to be indicated on page 132: "The mind untrained in that part of constructive logic which is relevant to the subject in hand will be ignorant of the sort of conclusions which follow from various sorts of assumptions, and will be correspondingly dull in divining the inductive laws".

As regards the relations of science to metaphysics, the apportionment of the world to metaphysics and science on pages 109-110 is of interest (*cf.* pp. 114, 187). And in the seventh chapter (p. 190) we read: "Science only renders the metaphysical need more urgent. . . . After all, science embodies a rigorous scrutiny of one part of the whole evidence from which metaphysicians deduce their conclusions."

The following misprints may perhaps be pointed out: p. 117, line 10, for "last" read "least"; and on p. 37, line 10, for "evitable" read "inevitable".

PHILIP E. B. JOURDAIN.

VIII.—NEW BOOKS.

The History of European Thought, An Introductory Book. By W. T. MARVIN. New York: The Macmillan Company, 1917. Pp. xiii, 439.

DR. MARVIN'S "introductory book" has certain unmistakable merits. He is laudably anxious to impress it on even the members of an introductory class that philosophy is a part of the general civilisation of man and that its history is affected in varying degrees of directness by any conditions which influence that general civilisation. And he quite rightly insists that for beginners a "history of philosophy" should be confined to an account of the main tendencies of speculative thought in their relation with those other tendencies which make up what we call—or used to call before recent events had given the word ominous associations—the "culture" of a people or an age. There should be no elaborate details of minor significance about the "systems" of great philosophers, to be "crammed" by pupils who as yet have never read a line of those philosophers' works. In the main Dr. Marvin makes a very creditable attempt to execute the task he has set before him in a work short enough to be studied and lectured on in the course of a single session. Of course the different parts of his story are more or less well told, according to the quality of the authorities he has followed. I think what might be called his "pre-historic history" of the origins of intellectual civilisation suffers from a tendency to inculcate what are after all only doubtful anthropological speculations as if they were established truths, and I feel sure the important subject of the connexions between Greek religion and Greek science has been more seriously affected, partly by this same tendency and partly by an anxiety to apply to both Greek religion and Greek philosophy a well-known but quite superficial antithesis invented by William James, who was after all no great scholar in the history of thought, between "tender-minded" and "tough-minded" thinkers and systems. Thus there is really no ground whatever for the extreme antithesis, taken from Messrs. Cornford and Gilbert Murray, between the Olympian and Chthonian forms of religion: there is diversity of tendency, but when the diversity is exaggerated into an absolute antithesis and made to dominate the whole of Greek philosophy we are passing from history into the realm of arbitrary fancy. To specify only one consequence of this exaggeration, there is really no sense in asserting that the "Olympian" religion somehow favoured the growth of science more than the "mystery religions," or in classing the Pythagoreans, the inventors of mathematics and mathematical physics, as "tender-hearted" romantics. The Ionian cosmologists led the way in early Greek natural science, not because they believed in the gods of Homer, but precisely because they did not trouble themselves about gods at all. So again, Dr. Marvin is fond of contrasting the "orderly," "tiny," "geocentric" universe of the "Greeks" with the vast and apparently disorderly universe of modern astronomy. Surely he forgets that the standing doctrine of

the early physicists was that of "innumerable *oipavoi*". Before Plato and Aristotle it was the exception to find a thinker who believed in a single *oipavos*.

On the whole period from Thales to Aristotle Dr. Marvin is, in the main, very good, thanks to his judicious choice of Prof. Burnet as the principal authority to be reproduced. He seems to me less satisfactory as soon as he gets to the third century, which he represents as one of scientific decadence due to the vanishing of the free city-states. He seems to forget that nearly all the greatest names in Greek mathematic and physics belong to this very age, and also that for all serious purposes the city-state had become a mere ghost of itself before Plato wrote a single line. Nor do I think him very satisfactory on the latest developments of Greek philosophical thought. Plotinus seems to impress him—I trust I am not doing him an injustice—as a decadent who alternated between empty emotionalism and the encouragement of sorcery. No one who has read Plotinus with intelligence could ever mistake him either for a sorcerer or for an emotionalist, but Dr. Marvin unfortunately pitches on Harnack (a writer not remarkable for philosophical power), as his authority, and appears moreover to cherish what I should call the exploded superstition that "progress" in philosophy is the same thing as steady approximation to a contented secularism. If I may say so, it seems to me to be a tacit assumption underlying his whole book that Christianity has been proved to be false. He is free, of course, to believe this, but I think it should have been explicitly stated that if he is mistaken on this point, his whole standard of progress will have to be revised.

The least satisfactory chapter of the book is that on Mediaeval Thought. The author is here writing of what he has little sympathy with and depending on authorities who, if he reproduces them correctly, have some singular prepossessions. Hence he gives to the conflict between Realism and Nominalism quite an undue prominence, and moreover never seems clear on the nature of the issue or the historical facts. If his authorities really led him to think of Scotus as a nominalist opponent of the realist Thomas and a precursor of Ockham they must have been very inadequately aware of the historical truth that Scotus was the leading figure in the later Franciscan realist movement, and that it is mainly against him that the polemic of his pupil Ockham is directed. I am quite sure that Dr. Marvin would not have written as he has done about the "nominalist" attack on the "proofs of the existence of God," if he had known that the most deadly attack on St. Anselm's argument, (the only "proof" to which he ever refers) was made by St. Thomas and that Scotus, whom he seems to regard as a nominalist, like Leibniz accepted the "ontological proof" as valid but incomplete. Dr. Marvin shows such ability as an "epitomator" that I am sincerely sorry he did not take Farnell as his authority on Greek religion, and Bäumker or Picavet as sources for his account of the schoolmen. And he might at least have offered some explanation of what is to me the very perplexing assertion that nominalism is somehow bound up with Protestantism, nationalism, democracy, and industrialism. By this way of thinking our modern International Socialists who despise national patriotism and hate the modern industrial system should surely be advocates of *universalia ante res*. But are they? And similarly the philosophical mathematicians like Mr. Russell, whose belief in their mathematics compels them to be realists, ought to be pillars of High Toryism. But again, are they?

In the section devoted to modern philosophy, Dr. Marvin deserts the method of strictly historical study for a dialectical discussion of such lead-

ing issues as those of rationalism *versus* naturalism, the claims of such ideals as those of phenomenism, positivism, (modern) idealism, pragmatism, the "new" realism, and the like, and the great historical figures are only brought in incidentally by way of illustration. This is perhaps advantageous for his immediate "pedagogical" purpose of interesting the beginner in philosophical problems, but the change of method, of course, seriously interferes with the unity of his work as a piece of literature, and it seems a pity that even a beginner should not be told as much about the ground-pattern of the philosophy of such men as Descartes and Kant as Dr. Marvin has told him in the case of Plato and Aristotle. Hence I feel inclined to ask the question whether from the "pedagogical" point of view it is really the best course to attempt anything so ambitious as a study of the whole history of philosophy. Would it not be better to confine the attention in the first year of study, to a single, fairly well delimited and not too extensive period, to be studied simultaneously by reading of original works, and by lectures going into reasonable detail on the history of that special period, leaving the study of the history of thought as a whole to later stage. *E.g.*, if you can make a pupil really grasp the character of the problems faced in Plato's *Republic* or Descartes' *Meditations* and the answers given to them by those philosophers, and also understand how the conditions of the age of Plato or of Descartes led to the questions being raised in just these forms, and receiving just this kind of answer, have you not really done a good year's work in teaching him what it is to philosophise? Is your pupil any the worse off because in his study of Plato he has not heard anything directly about Roger Bacon or Dr. Schiller, or in his study of Descartes, about Parmenides or Epicurus? When he does come to concern himself about these personages, he will bring to his judgment of them, if his earlier studies have been rightly directed, a prepared and competent mind.

A. E. T.

A Beginner's Psychology. By Edward Bradford Titchener. New York : The Macmillan Company, 1916. Pp. xvi, 362.

In the present volume Prof. Titchener has produced what practically amounts to a new introductory text-book to Psychology. For although, to some extent, it is based upon the older *Primer*, "which will not," says Titchener, "be further revised," this *Beginner's Psychology* is new, both in its manner of presentation, and in much of its subject matter. The book is attractive and successful, and in the hands of a competent teacher should form an admirable introduction to its subject. Excellent illustrations abound, and no chance is lost of urging the student to attempt analysis of his own experience. The volume, however, can hardly be said to be easy reading. Prof. Titchener's very delicacy, and sensitiveness of introspection frequently, as in much of the treatment of "attitudes," tends to render his exposition hard to follow. There are occasional, perhaps unavoidable, lapses into dogmatism, as in some of the discussion of the "context theory" of meaning; and possibly the book as a whole gives the impression that psychology has been more eager in its undertakings than successful in its results. However, there is no doubt that an elementary treatise is the hardest of books to write, and the easiest to criticise. When everything has been said, it remains true that Titchener has covered the ground of an introductory course in a most interesting and efficient manner. Ingenious exercises are appended to each chapter, together with lists of further authorities. The latter, though the selection occasionally appears somewhat perverse, possesses

the excellent feature of containing a number of references to original research.

F. C. BARTLETT.

Received also :—

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M. Deshumbert, *An Ethical System Based on the Laws of Nature*, translated from the French by Lionel Gilen, Chicago & London Open Court Publishing Co., 1917, pp. ix, 231.
R. W. Sellars, *The Essentials of Philosophy*, New York, The Macmillan Co., 1917, pp. x, 301.
H. Wildon Carr, *The Philosophy of Benedetto Croce*, London, Macmillan & Co., 1917, pp. vii, 213.
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Bertrand Russell, *Mysticism and Logic*, London, Longmans, Green & Co., 1918, pp. vii, 234.
Benjamin Kidd, *The Science of Power*, London, Methuen & Co., 1918, pp. 306.
J. Welton, *Groundwork of Logic*, London, W. B. Clive, University Tutorial Press, 1917, pp. xi, 356.
Margaret Drummond, *The Dawn of Mind*, London, Edward Arnold, 1918, pp. xi, 179.
A. J. Jacobs, *Neutrality Versus Justice*, London, T. Fisher Unwin, 1917, pp. vi, 128.
Frederick Bligh Bond, *The Gate of Remembrance*, Oxford, B. H. Blackwell, pp. x, 176.
Guido de Ruggiero, *Storia della Filosofia*, vol. i., Bari, G. Laterya & Figli, 1918, pp. 242.
Paul Elmer More, *Platonism*, Princeton University Press; London, Humphrey Milford, Oxford University Press, 1917, pp. ix, 306.
Rev. C. J. Shebbeare, *The Challenge of the Universe*, London, Society for Promoting Christian Knowledge, 1918, pp. xxiv, 239.

IX.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxvi., No. 2. **A. O. Lovejoy.** 'On Some Conditions of Progress in Philosophical Inquiry.' [Differences among philosophers go deeper and are less easily corrigible than differences among men of science. For philosophy has sought to combine edification with verification, and philosophers have failed in circumspection, in induction of pertinent 'considerations'. The remedy lies in a 'linked sequence of provisionally limited and hypothetical discussions' and perhaps in the co-operative preparation of a philosophical *Summa*, an encyclopaedia of theses or problems given with all their relevant considerations.] **A. K. Rogers.** 'The Nature of Oughtness.' [The moral ought is neither the obligatoriness felt to reside in habit and custom, nor the perception of the logical relation of means to end. It rests upon native feelings of disapproval. Given a judgment of comparison of objects of approval and disapproval, and given a craving for the object of disapproval, the moral oughtness emerges.] **H. C. Longwell.** 'Philosophy as Handmaid of Society.' [Disinterested inquiry must remain an ideal only, since in the last resort it is bound to regard the welfare of society as the condition of all human activity.] **E. G. Spaulding.** 'Proceedings of the American Philosophical Association: The Sixteenth Annual Meeting, Columbia University, 27th and 28th December, 1916.' Reviews of Books. Notices of New Books. Summaries of Articles. Notes.—Vol. xxvi., No. 4. **B. W. Van Riper.** 'On Cosmic Reversibility.' [The notion of reversibility, whether it be the orderly undoing of its work by a machine, or a concept applicable to the ultimate hypothetical world of abstract physics, or an objective analogue of the backward reading of a mathematical equation, or a reversal of the time-stream itself, dissolves away into pseudo-mathematical dreaming.] **H. Haldar.** 'Leibniz and German Idealism.' [Leibniz' conception of ultimate reality as a system of minds in which an all-inclusive spiritual principle is realised is essentially that of Kant, Hegel, and Lotze: witness the final development of the thing-in-itself, Hegel's Absolute as impersonal unity of finite but perfect selves, and Lotze's relations as modes of the one all-embracing mind.] **H. E. Bliss.** 'The Subject-Object Relation.' [Objects exist external to and independent of subjects. Object implies not merely existence in relations but the special relation of appearance to a subject, or subjects, so qualified and so related as to apprehend such object. Subject is that to which objects appear, have appeared, or may appear.] Discussion. **C. Rinaker.** 'The Dualism of Mr. P. E. More.' [More's system is not dualistic; in its practical working it is partly pragmatic, and in the last analysis it is essentially idealistic.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes. **R. M. Verkes.** 'Hugo Münsterberg.'—Vol. xxvi. No. 5. **A. Lalande.** 'Philosophy in France, 1916.' [Discusses the influence of the war on morality, by way both of present unification (Barrès, Petit) and of future problems (Belot, Maxwell); analyses Le Dantec's *Le problème de la mort et la conscience universelle*; pays a tribute to Delbos and Ribot.]

R. B. Perry. 'Purpose as Tendency and Adaptation.' [Neither temporal direction nor tendency nor the relation of an external agency to a tendency signifies purpose. The term might be predicated of adaptation or complementary adjustment (compensatory, progressive, preparatory); but we are here still in the realm of the automatic; and purpose is therefore best reserved for plastic or modifiable adjustment.] **J. Laird.** 'Introspection and Intuition.' [Critique of Bergson. Introspection, regarded as an act of direct acquaintance with the mind, is a feasible operation; and psychology therefore does not require a theory of knowledge peculiar to itself, or a special faculty of intuition.] **J. E. Creighton.** 'Two Types of Idealism.' [Mentalism or existential idealism asserts that everything is mental in character, and by thus transforming experience into an order of existences takes on the problem and mode of thought of realism. Historical speculative idealism sees that the reality known in experience, as existing concretely, forms part of a permanent system of relations and values; it thus holds fast to the unity of existence and significance. "Experience is at once an explication or revelation of reality, a comprehension of the mind of one's fellows, and a coming to consciousness on the part of the mind of the nature of its own intelligence."] Discussion. **A. O. Lovejoy.** 'Progress in Philosophical Inquiry.' [Reply to critics of the proposed *Summa Metaphysica*.] **J. Lindsay.** 'The Knowledge of Other Minds.' [Reality is the support of value, and selves may be known as well as their purposes and intentions.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes. **J. Loewenberg.** 'A Bibliography of the Unpublished Writings of Josiah Royce.' **W. M. Urban.** 'A Correction.'—Vol. xxvi., No. 6. **A. K. Rogers.** 'The Nature of Certainty.' [Certainty attaches to intuitions not because they are necessary but because they are self-evident. There is no ultimate necessary truth except the formal truth that reality cannot combine strictly contradictory predicates. Self-evidence applies solely to judgments about the content of present (or just past) experience, to the effect that this content exists and that such-and-such is an accurate description of it.] **H. C. Warren.** 'The Mechanics of Intelligence.' [Every factor concerned in the manifestation of intelligence (selection of movement, learning, satisfaction) may be adequately explained in neural (physicochemical) terms without the hypothesis of a guiding influence of consciousness. The value of consciousness is the subjective life which it furnishes to the individual.] **G. A. de Laguna.** 'Phenomena and Their Determination.' [We must distinguish real from pseudo-phenomena, which are intermediate; and analysis of a phenomenon into elements from its reduction to a collection of items occupying the same *locus*. Philosophical atomism assumes wrongly that, because any *locus* may be described in a certain way, any phenomenon may be so described.] **A. R. Chandler.** 'Professor Husserl's Programme of Philosophic Reform.' [Neither the reduction to pure consciousness nor the reduction to eidetic analysis affords to phenomenology any novel content outside the scope of an exhaustive psychology. The gain by concentration of attention is more than offset by the loss of a consistent method and of guiding ideas derived from other sciences.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

PSYCHOLOGICAL REVIEW. Vol. xxiv., No. 4. Twenty-fifth Anniversary of the American Psychological Association. (1) **J. Jastrow.** 'Varieties of Psychological Experience.' [Retrospective notes upon analytical, comparative, applied, abnormal, and social psychology, with especial emphasis on the future of applied psychology and on psychognosis.] (2) **J. Dewey.** 'The Need for Social Psychology.' [A certain kind of as-

sociated or joint life, when brought into being, has an unexpected by-product : the formation of those acquired dispositions, sets, attitudes which are termed mind. Social facts are the material of an experimental science, where the problem is that of modifying belief and desire (*i.e.*, mind) by enacting specific changes in the social environment. We must gain a control of human nature comparable to our control of physical nature.] **M. W. Calkins.** 'The Case of Self against Soul.' [Historically the soul has been conceived not only as life and as immaterial substance, but also as conscious being (Plato, Aristotle, Augustine, even Descartes ; the divorce of self from soul becomes explicit in Locke). The soul has no place in psychology, but the reinstatement of the self is imperatively needed.] **A. P. Weiss.** 'Relation between Structural and Behaviour Psychology.' [Behaviourism has as manifold possibilities of analysis and classification as has structuralism, with the added advantage that its phenomena can be represented as a causal series. The introspective reaction is only the habit of being able to react by speech, more or less adventitiously, to the weak stimulation of obscure receptors.] Discussion. **T. V. Moore.** 'Meaning and Imagery.' [Critique of Tolman.] **G. R. Wells.** 'Some Experiments in Motor Reproduction of Visually Perceived Forms.' [Visually exposed figures are drawn from memory more accurately when the drawing is screened from view than when it is followed by eye.]

AMERICAN JOURNAL OF PSYCHOLOGY. Vol. xxviii., No. 1. **S. S. George.** 'Attitude in Relation to the Psychophysical Judgment.' [The judgments 'greater,' 'equal,' and 'less' may all occur under the same constant serial disposition. 'Doubtful' judgments imply the intrusion of an extra-serial attitude, and by the law of homogeneity must be excluded from the ordinary psychophysical computations.] **W. H. Burnham.** 'The Significance of Stimulation in the Development of the Nervous System.' [The reflex arc appears in the order effector organ, receptor organ, adjusting mechanism ; nervous action in the order automatic, reflex, conditioned. The whole course of development is a matter of stimulation and response.] **S. C. Fisher.** 'An Analysis of a Phase of the Process of Classifying.' [The essence of the process is the mode of perception of the object to be classified : the regions of essential group-features are stressed in consciousness, resemblance permitting of ready passage, and difference arresting attention. In the latter case, certain contents (kinesthetic, organic, affective) function as rejection.] **E. Cowles.** 'Research in Pathological Psychology and Bio-chemistry.' [History of the laboratories of the McLean Hospital. The trend has been toward the physicochemical study of nutrition and like problems, by aid of the concepts of energy potential, physiological use, protective and defensive reactions. Principles of a genetic or developmental character have emerged from concrete evidence of effects of overuse, waste in excess of repair, irritable weakness with lowered thresholds, failing inhibition with increasing activity tending to loss by exhaustion.] **S. W. Fernberger.** 'On the Number of Articles of Psychological Interest Published in the Different Languages.' [There is noticeable decline of interest in French, and English is gaining ascendancy over German.] 'Minor Studies from the Psychological Laboratory of Vassar College.' Book Notes.—Vol. xxviii., No. 2. **J. B. Watson** and **J. J. B. Morgan.** 'Emotion! Reactions and Psychological Experimentation.' [The original emotive reactions are fear, rage, and love. Experiment shows that, by the method of conditioned reflexes, the reactions may be transferred ; and that the reaction furnishes a drive, by virtue of secretions present, lacking in ordinary instinctive and habitual actions. The results are applicable in

education and business.] **H. W. Chase.** 'On the Inheritance of Acquired Modifications of Behaviour.' [Modifications of behaviour by intense and thorough integration of the organism are likely to be inherited by the formation of conditioned reflexes; such a view is supported by the hormone theory.] **J. J. B. Morgan.** 'The Effect of Sound Distraction upon Memory.' [The rote-learning of paired associates is interfered with by noise; the amount retained after two days is less; the range of attention is decreased. It is important to take a number of simultaneous measurements during a single test.] **L. M. Terman.** 'The Intelligence Quotient of Francis Galton in Childhood.' [Between three and eight Galton's quotient must have been not far from 200 (mental age double actual age); the highest found by the writer is 170, and those above 150 are extremely uncommon.] **H. W. Chase.** 'Psychology and Social Science.' [The social sciences have failed to distinguish between the content and the method of science. They must base upon a scientific study of the laws of human behaviour, conceived in terms of situation and response.] **C. F. Fraser.** 'Psychology of the Blind.' [Those blinded at eight to ten years of age visualise perfectly, those blinded at four to eight, imperfectly. The physical world of the blind is circumscribed by hearing rather than by touch.] **G. Murphy.** 'An Experimental Study of Literary *vs.* Scientific Types.' [Results of a word-association test; a good diagnostic character is that scientific subjects give many more 'members of a common pair associated by similarity'. Proposal of a new classification of associations for the purpose of the paper.] **E. B. Titchener.** 'Professor Stumpf's Affective Psychology.' [Consideration of Stumpf's reply to critics : Brentano, Kuelpe, Titchener, Ziehen.]

JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS. xiv., 8. **M. W. Calkins.** 'Purposing Self *versus* Potent Soul: A Discussion of Prof. Warren's "Study of Purpose".' [It is necessary to distinguish between vitalism and self-psychology.] **A. G. A. Balz.** Reports on the Sixteenth Annual Meeting of the American Philosophical Association, xiv., 9. **D. S. Robinson.** 'An Alleged New Discovery in Logic.' [Attacks elaborately Dewey's doctrine of the practical judgment.] **John Dewey.** 'Concerning Novelties in Logic: A Reply to Mr. Robinson.' [The criticism fails because it presupposes the authority of the older views of which the doctrine is a correction.] xiv., 10. **J. B. Pratt.** 'A Defence of Dualistic Realism.' ['To insist that dualism cannot be accepted because inferential knowledge and transcendence seem a bit hard to understand, and then to adopt in its place a theory so bristling with irreconcilable characteristics as I think I have shown pan-objectivism to be, would suggest forcibly the interesting performance of straining at an gnat and swallowing the camel.'] **M. R. Cohen.** 'The Distinction between the Mental and the Physical.' [Maintains that "while we must, by all means, keep the distinction between the mental and the physical, we must reject the view that they are mutually exclusive". A 'neutral monism' answers "the question how can the same entity be both in space and in consciousness," by remembering that "the same thing can be in a number of different classes which are not mutually exclusive".] **S. E. Jelliffe.** 'Dr. Watson and the Concept of Mental Disease.' [A reply to the article in xiii., 22, which insists that the Freudian terminology is not arbitrary but the fruit of experience and has pragmatic sanction because it works clinically.] xiv., 11. **W. Fite.** 'Consciousness—Where is It?' [Everywhere, wherever in the world, 'objects are constituted by a selective, personal, human interest for which they have a meaning']

to "look for the object in some separable, impersonal, non-conscious, non-human and non-significant element or entity" is vain. The difficulty about finding consciousness arises merely from taking up the standpoint of the observer, not of the agent.] **B. H. Bode.** 'The Nature of the Psychical.' ["Conscious behaviour is . . . a progressive transformation of the given situation so as to remodel it nearer to the heart's desire." It is "essentially experimental; its method is at bottom the method of trial and error".] **H. E. Cunningham.** 'Theory as Truth: a Criticism.' [Cf. T. L. Davies in xiii, 9. "Our ideas are all hypotheses," "satisfactory plans of behaviour thus far," but "have no lease on the future". "Enough laws, we are told, close a situation, but it seems that we have never found enough laws in the whole history of thinking to close any question."]

REVUE DE MÉTAPHYSIQUE ET DE MORALE. Jan., 1917. **V. Delbos.** 'Caractères généraux de la philosophie française.' [Though clearness and rigid analysis are characteristic of French philosophy, it is a mistake to think that these have led the greater thinkers to excessive signification, or to a neglect of fact.] **L. Couturat.** 'Sur les rapports logiques des concepts et des propositions.' [The second chapter of C.'s unpublished *Manuel de Logistique*. Nothing new; but a good exposition of the elementary theory of propositions, classes, and propositional functions, with emphasis on the points of difference between the calculus of propositions and that of classes.] **F. Colonna D'Istria.** 'La logique de la médecine d'après Cabanis.' **A. Reymond.** 'L'éducation et la pédagogie expérimentales.' **Th. Ruypen.** 'Une Idée en Péril.' [The idea is that of Humanity, in the sense of an international culture and morality. The danger is from a narrow nationalism, such as is expressed by the Pan-Germans on the one hand, and the Paris Conference on the other. 'The attempt to think clearly in troublous times is as much a patriotic duty as a human one.' A noble and eloquent appeal in a temporarily unpopular cause.] 'Nécrologie.' [A short sketch of the lives of M. Ribot, the eminent psychologist, and of M. Henri Dufumier, a promising young logician who has fallen in battle.] Vol. xxiv. No. 2. March, 1917. **V. Delbos.** 'Les conceptions de l'histoire de la philosophie.' [This is the first of three lectures by the late Victor Delbos in which he tries to determine the formal object of the history of philosophy. The two others will shortly be published in the *Revue*. This lecture contains, among other things, a review of the chief attempts in the direction mentioned from Thomas Stanley (1655) and Bayle (1695-1697) to Renouvier.] **F. Enriques.** 'Sur quelques questions soulevées par l'infini mathématique.' [The spirit of infinitesimal analysis caused the inductions which were found valid for numbers as great as wished to be extended to infinity, and this 'realist doctrine in its first historical form' was abandoned in consequence of further critical mathematical work. 'The work of renewal and modification of the realist doctrine gave rise to a second historical form of realism which has been pursued by . . . Georg Cantor, . . . and the philosopher B. Russell has developed in the widest sense the philosophical consequences of the realism thus introduced into mathematics.' The fundamental principle of this new doctrine is: 'Every infinity of objects virtually defined can be considered as a totality forming a class and constituting a new logical object. In distinction to what was assumed in the above first historical form, we suppose that the properties of this object are absolutely new, that is to say, it is not legitimate to enunciate them *a priori* by an induction extended from the finite to the infinite.' Even this second form of the

doctrine is at any rate 'partially unsuccessful,' as is shown by the paradoxes of the theory of aggregates. It seems to the reviewer that this article suffers from a total omission of the fact that, since his well-known article in MIND for 1905, Russell has published many papers and books showing that it is possible, with some care and complication, to avoid the paradoxes spoken of by abstaining from the assumption that there are such things as classes at all. A further indication of the fact that Russell's work has not been properly appreciated is that the principle of infinite selection is said to be 'adopted by Russell and by Zermelo, etc.]

L. Rougier. 'La symétrie des phénomènes physiques et le principe de raison suffisante.' Note de critique scientifique. **F. Le Dantec.** 'Encore la dégradation de l'énergie.' [Occupied with the recent work by L. Selme (*Principe de Carnot contre formule empirique de Clausius*, Givres and Paris), which throws light on discussions between the author and B. Brunhes.] Étude critique. **L. Robin.** 'La "philosophie grecque" de M. J. Burnet.' [A long notice of Burnet's *Greek Philosophy*. Part I.: *Thales to Plato*, London, 1914.] Questions pratiques. **G. S.** 'Le sens de l'union sacrée.' Nécrologie. 'Josiah Royce.'

ARCHIVES DE PSYCHOLOGIE. Tome xvi., No. 2. **A. Ferrière.** 'La psychologie bibliologique d'après les documents et les travaux de Nicolas Roubakine.' [Outlines the life of Roubakine and his labours in behalf of popular scientific education, with illustrations of his methods. The proposed 'psychology of the book' is concerned with its contents, regarded as intellectual, affective, and volitional; with its production, marketing, and consumption (psychology of the author; of the printed work in relation to author, distributor, public; of the reader); and with the individual and social conditions of production and consumption.]

C. Baudouin. 'Symbolisme de quelques rêves survenus pendant la tuberculose pulmonaire.' [Dreams due to repression of fears regarding health; the will to live, not the sexual instinct, is in play.] **C. Baudouin.** 'Psychanalyse de quelques troubles nerveux.' [Ideas of persecution and neuralgias due to a sexual complex and the repression of a desire for culture; sexual shock sublimated in artistic productivity.]

C. G. Jung. 'La structure de l'inconscient.' [Psychoanalysis first reaches the personal unconscious, the layer of repression, and then penetrates to the impersonal unconscious, the collective psyche. The result is a dissolution of personality; the patient feels himself to be like a god; free rein is given to imagination. This stage can be overcome neither by regressive reconstitution of the *persona* nor by identification of individuality with the collective psyche; the patient must remain in touch with his unconscious, and treatment must proceed by way of interpretation of his imaginative ideas.] Recueil de Faits. Documents et Discussions.

R. Weber. 'L'orientation dans le temps pendant le sommeil.' [The tendency to wake at a given hour depends on an automatism; guesses at the time of casual waking have an average error of 45 minutes.] Bibliographie. Nécrologie, 1916.—Tome xvi., No. 3. **C. Jéquier.** 'L'emploi du calcul des probabilités en psychologie.' [Written for psychologists, and useful not only mathematically, but also because of its insistence on the tacit assumption of equality of probabilities *a priori*, on the conflict between the laws of homogeneity and of large numbers, on the necessity of exercising judgment.] Recueil des Faits: Documents et Discussions.

E. Claparède. 'Rêve satisfaisant un désir organique.' [A dream which expresses overtly the desire for fresh air.] **C. Werner.** 'XII^e Réunion des Philosophes de la Suisse romande.' [Discussion of Benrubi's paper on integral knowledge.] Bibliographie.

'SCIENTIA' (RIVISTA DI SCIENZA). Vol. xxi., April 1917. **Carré de Vaux.** 'Sur l'origine des chiffres.' [The author comes to the conclusion that the story according to which our numerals come from India is a Persian Neo-Platonic legend. This conclusion is based on the statement of the Arabian historian Masoudi that this and several other important inventions were made in the reign of the powerful and wise king Brahman. 'People who are even slightly familiar with (*un peu versées dans*) the history of philosophy will recognise this at once as a Neo-Platonic legend; and the fact that the 'Era of the Creation' (a Persian era) is mentioned allows the author to conclude that the legend is Persian. A confusion has arisen on the subject of the word '*hind*', or more exactly '*hind*', which was used to describe the numerals. As a matter of fact, it seems to be a form of the Persian '*end*', and thus 'signs of *hind*' means 'arithmetical signs' and not 'signs of India'. Another example is the following: Apollonius of Perga, who was not an Indian, was said to be '*el-hindi*' in some Arabic manuscripts; so this word must evidently be translated as if it were '*el-hindasi*', the geometer or engineer. It is to be noticed that in Araoian treatises the abacus is called '*takht*', which is a Persian name. Thus the author concluded that the numerals originated in the Greek world, and the history of their slow diffusion is easier to explain if we admit that they are a Neo-Platonic 'or (*soit*) Neo-Pythagorean' invention, for the Pythagoreans are well-known to have had a taste for secrecy. From Greece the numerals passed to Persia and the Latin world, and from Persia to India and afterwards to Arabia. The shapes of the numerals were not taken from those of letters, but were formed directly by means of very simple conventions. These figures were due to the Neo-Platonists; they were known in the schools of Persia before they were known in Islam, and it is there that the Arabs found them. From Persia again they passed into India. This article seems to deserve great attention from those who are learned in the history of philosophy and in philology.] **F. Iñiguez.** 'Les spectres stellaires.' [Short account of the help that the study and photography of stellar spectra has given to knowledge of the constitution, evolution, motions, etc., of stars.] **É. Rabaud.** 'La vie et la mort des espèces. Seconde Partie : Les conditions de la persistance et de la disparition des espèces.' [Since the system of 'means of defence' does not solve the problem (cf. *Scientia*, March, 1917), we have to consider the question of the nourishment of organisms at the expense of one another and try to seize exactly the bearings of this fact on our problem.] **P. Fedozzi.** 'La crisi del diritto internazionale.' [The laws which regulate international relations have been disregarded in the most flagrant way by Germany, but they have also been more or less disregarded by almost all the belligerents up to the present time. The object of this article is to sum up the chief points of a discussion of the subject 'which seems to have arrived at a state of saturation'.] **R. Muir.** 'The Freedom of the Seas.' ['The complete freedom of the seas in time of war, in the extended sense in which that phrase is now being used, ought not, in the interests of Europe, to be set up until the time comes when war shall have been wholly banished; because sea-power, which cannot threaten the independence of its neighbours, ought not to be disarmed against land power, which can. Freedom of the seas in time of peace already fully exists; but it is safe only so long as the chief naval power is held by a State which is not a great land-power.'] Critical Note. **F. Savorgnan.** 'La question jougo-slave.' [Examination of the thesis of some Jugo Slav refugees at Paris in favour of the creation of a great Jugo-Slav kingdom by the joining to Serbia of various adjoining

countries.] Book Reviews. [The books reviewed which are on economics are: C. Gini's *Il concetto di "transvariazione" e le sue prime applicazioni* (Rome, 1916); C. Gini's *L'ammontare e la composizione della ricchezza delle nazioni* (Turin, 1914); H. F. Sécretan's *La population et les mœurs* (Paris, 1913); A. L. Bowley's *The Nature and Purpose of the Measurement of Social Phenomena* (London, 1915); J. Burn's *Vital Statistics Explained* (London, 1914); J. Riesser's *Préparation et conduite financières de la guerre* (Lausanne and Paris, 1916); G. Jèze, J. Barthélémy, C. Rist, and L. Rolland's *Problèmes de politique et finances de guerre* (Paris, 1915); A. L. Bowley's *The Effects of the War on the External Trade of the United Kingdom* (Cambridge, 1915); F. A. Woods and A. Baltzly's *Is War Diminishing?* (Boston and New York, 1915); and P. Otlet's *Les problèmes internationaux et la guerre* (Geneva and Paris, 1916). Review of Reviews. Chronicle. French translations of articles in Italian and English Series ii. Vol. xxi. May, 1917.

A. C. D. Crommelin. 'Are the Spiral Nebulae External Galaxies?' **B. Cabrera.** 'Les propriétés magnétiques et la structure de l'atome.' **F. Bottazzi.** 'Le attività fisiologiche fondamentali. Terzo articolo: L'attività secréta.' **C. Thalbitzer.** 'Les problèmes financiers les plus fondamentaux qui se présenteront aux Etats belligérants après la guerre.' **F. V. N. Beichmann.** 'L'établissement d'un Tribunal international permanent.' Book Reviews. General Review. 'Histoire des sciences.' **A. Mieli.** Études anciennes et récentes d'histoire de la chimie.' Review of Reviews. French translations of articles in English and Italian. Series ii. Vol. xxi. June, 1917. **Sir F. W. Dyson.** 'The Determination of Stellar Distances.' **Mario Betti.** 'Il problema della trasformazione della materia, dai tempi antichi ad oggi.' ['Anaximander taught that the principle of all bodies is a subtle, indefinite (*ἀτεύπον*), and ethereal matter which penetrates everything,' and comparatively modern science, with Helmholtz and Kelvin, has returned very much to this point of view.] **H. Delacroix.** 'Le mysticisme et la religion. I^{re} Partie: Extension et nature du mysticisme.' [Examines the fundamental psychological characteristics of mysticism; in a second part of this article the author will pass to an examination of its relations with religion.] **A. Landry.** 'La politique économique internationale après la guerre.' **T. J. Laurence.** 'Les effets de la guerre sur le Droit international.' Critical Note. **S. Jankelevitch.** 'Études classiques et études scientifiques.' [A review of recent British discussions of science and classics in education. Some reasons are given why classical studies should be assigned a place which is not negligible.] Book Reviews. Review of Reviews. Chronicle. [There is an interesting account of a meeting of the Italian Society for the Advancement of Sciences at which is emphasised the importance of collaboration between the nations of the Entente in scientific and philosophic literature and international organisation of this literature.] French translations of articles in English and Italian.

X.—NOTES.

MIND ASSOCIATION.

THE Annual Meeting of the Mind Association will be held on Friday-5th July, at 5 p.m., at University College, Gower Street, W.C. The following series of Joint Meetings of the Mind Association, the Aristotelian Society, and the British Psychological Society have been arranged for the week-end. They will be held at the Hall of the University of London Club, 21 Gower Street, W.C. 1.

Friday, 5th July (at 9 p.m.), "Space-Time," Prof. S. Alexander.
Saturday, 6th July (at 10 a.m.), Symposium : "Are Physical, Biological, and Psychological Categories Irreducible?" Dr. J. S. Haldane, Prof. D'Arcy W. Thompson, Dr. P. Chalmers Mitchell, and Prof. L. T. Hobhouse.
Saturday, 6th July (at 2.30 p.m.), Symposium : "Why is the 'Unconscious' unconscious?" Dr. Ernest Jones, Dr. W. H. R. Rivers, and Dr. Maurice Nicoll.
Sunday, 7th July (at 2.30 p.m.), Symposium : "Do finite individuals possess a substantive or an adjectival mode of being?" Dr. Bernard Bosanquet, Prof. A. S. Pringle-Pattison, Prof. G. F. Stout, and Lord Haldane.
Monday, 8th July (at 2.30 p.m.), Short Communications on Special Problems.

Members of the Aristotelian Society will receive copies of the papers in the ordinary way. Members of the Mind Association who intend to be present and who are not members of the Aristotelian Society can obtain copies by application to the Secretary of the Aristotelian Society (Prof. G. Dales Hicks, 9 Crammer Road, Cambridge). The applications should be received on or before 15th June. It is hoped that arrangements may be made for the accommodation in the same building of all who come up specially from the country. Full particulars will be announced later.

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